



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>





600010769T





v. S. 1827.

A SYNOPSIS
OF
ARCHITECTURE,
FOR THE
INFORMATION OF THE STUDENT
AND
AMATEUR,

CONTAINING AN ENUMERATION OF THE MOST CELEBRATED BUILDINGS OF ANTIQUITY,
A DESCRIPTION OF THE VARIOUS CONSTITUENT PARTS IN THE ANCIENT
AND MODERN STYLES, AND A COPIOUS ALPHABETICAL
VOCABULARY OF TECHNICAL TERMS.

BY
CHARLES EDWARD PAPENDIEK,
ARCHITECT.

"Inventas aut qui vitam excoluere per artes:
Quique sui memores alios fecere merendo:"
Virgil. Æneid. Lib. VI.



LONDON:
PUBLISHED FOR THE AUTHOR BY PRIESTLEY AND WEALE, HIGH
STREET, BLOOMSBURY.

1826.

625.

ENTERED AT STATIONERS' HALL.

A. SNELL, Printer, 33, Harcourt Street, Bryanston Square.

It has occurred to the author of the following pages, that however diffuse and satisfactory the information respecting the science of Architecture may be, as rendered through the medium of extensive cyclopædias, and other costly publications, it still remained a desideratum to provide, in one small volume, an explanation of all those portions and terms of the Art, the familiarity with which, would be found generally useful both to the incipient student and amateur.

In this view, the author has, with considerable care and scrupulosity, collected materials for a comprehensive summary of the Art, studiously avoiding all questions of mere theory and opinion, and confining himself to a description and elucidation of those matters connected with his subject, such as ancient works and technical terms, which from their celebrity or daily use, are indispensable to be clearly understood.

Architecture is considered as an art, or science, and hence is termed theoretical

and practical; it is likewise divided into three distinct branches, civil or domestic, military, and naval. The theory or science consists in the knowledge of the elementary principles of mathematics, and their proper application in the completion of a design for any structure. The practice or art is more intimately connected with the faculties of taste and invention. By this the practitioner is enabled to present to the eye beautiful forms, and to lay hold of the imagination, by administering to it, ideas of vastness or grandeur. In order to acquire this power, the student should become acquainted with all the various styles that have successively flourished in his own country and others, with the proper modes of arrangement, symmetry, and decoration; and should cultivate a familiarity with the ancient terms and modern appellations of all the component parts in every description of edifice.

The mechanical and operative part in the construction of buildings, may be more properly termed the Art of Building.

It is, therefore, proposed to divide the subject into six distinct sections, the first

of which will, in order to clear the way for more important branches, present a summary of the several eras of the Art, as defined by sundry intelligent professors ; in the next place, the author will point out some of the most memorable states and cities of remote ages, situate on the continents of Asia and Africa ; mentioning certain remarkable works of art contained therein ; and dwelling more especially on the leading peculiarities in the stupendous works of ancient Egypt. Thirdly, he will conduct the reader to the more classical countries of Greece and Rome, with their immediate dependencies ; noticing in due succession the structures most celebrated for beauty and utility, describing some of the famous usages connected with these structures, such as the Olympic games, &c. ; giving a list of the most celebrated architects and sculptors ; and then proceeding to the consideration of the five orders of Architecture, and other particulars comprehended in the ancient edifices. Fourthly, he will advert to the subject of fortifications, and state the usual methods observed in designing them, both in former ages and at the present

time ; giving a catalogue of the technical expressions. Fifthly, he will proceed to the consideration, in chronological order, of the Gothic style of Architecture, in all its varieties, from the rude prefigurations of the Saxon, to the splendid completions of the Florid ; adding a list of the appellations peculiar to the branch of art under review : and lastly, a definition will be subjoined of all those terms most generally used in the several departments of the Architecture, both public and domestic, of the present age.

CONTENTS.

SECT. I.		PAGE.
	The Division of the Eras	1
SECT. II.		
	Principal Antiquities in Asia and Africa	2
	Syria	3
	Asia Minor	3
	Persia	4
	India	5
	Egypt	5
	Wonders of the World.....	9
SECT. III.		
	Principal Works in Ancient Greece	10
	In the Peloponnesus	10
	In Græcia Propria	12
	In Ægina and Sicily	18
	Grecian Architects and Sculptors	19
	Principal Works in Ancient Italy	20
	Rome	20
	Laurentinum, Tiber, Tusculum	28
	Baïæ, Verona, Pæstum	29
	Remains in France, Spain, &c.	29
	Roman Architects, and the Ten Modern Masters	30
	Orders of Architecture	31
	Orders of Ancient Temples	36
	Intercolumniations	37
	Methods of Constructing Walls among the Ancients	38
	Terms applied to Ancient Buildings	39
	Terms connected with Ancient Rites and Entertain- ments	42
SECT. IV.		
	On Fortification.....	44
SECT. V.		
	Styles of Gothic Architecture	52
	Religious Buildings in the Gothic Style.....	57
	Divisions of Gothic Churches	59
	Gothic Terms.....	61
SECT. VI.		
	Modern general Terms	68
	Supplementary Vocabulary of Terms applied to Ancient Buildings	102
	———— Fortification	104
	———— Gothic Buildings	106
	———— Modern Edifices	107

ERRATA.

PAGE. LINE.

- 53 — 2 for quartrefoils read quatrefoils.
 68 — 9 from top, for laudible read laudable.
 79 — 6 for accomodation read accommodation.
 84 — 15 for are read is.
 84 — 12 for accomodate read accommodate.
 90 — 10 for porphery read porphyry.
 96 — 5 from top, for augers read augurs.
 97 — 10 from top, for *θεομαι* read *θεαρων*.
 103 — 3 from top, for *ædicula* read *ædiculæ*.



DIRECTIONS TO THE BINDER

FOR PLACING THE PLATES.

Plate 1 to face	page 15.	Plate 9 to follow	plate 8.
— 2 —	page 16.	— 10 to face	page 38.
— 3 —	page 27.	— 11 —	page 44.
— 4 —	page 31.	— 12 —	page 46.
— 5 —	page 32.	— 13 —	page 54.
— 6 —	page 34.	— 14 to follow	plate 13.
— 7 to follow	plate 6.	— 15 to face	page 56.
— 8 to face	page 36.	— 16 —	page 61.

A SYNOPSIS
OF
ARCHITECTURE.

SECTION I.

THE adjustment of the various eras of style in ancient and modern Architecture has given rise to great differences of opinion ; but in the limited space of this summary, it would be in vain to attempt their detailed consideration. It will be sufficient for our present purpose, to give them the following divisions, adopted from excellent authority.

From the building of the Tower of Babel, A.C. 2247, to the foundation of Athens by Cecrops, A.C. 1556.

From the foundation of Athens, to the age of Pericles, A.C. 436.

From the age of Pericles, to that of the Emperor Augustus, A.C. 4.

From the age of Augustus, to that of Constantine the Great, who transferred the seat of empire from Rome to Byzantium, called after him Constantinople, A.D. 306.

From the age of Constantine the Great, to the present time.

SECTION II.

PRINCIPAL ANTIQUITIES IN ASIA AND AFRICA.

BABYLON, the most celebrated city of antiquity, was supposed by some, to have been built by Nimrod, or Belus ; by others, its erection is attributed to Semiramis,

The Temple of Belus, in the centre of the city, (originally thought to be the same as the Tower of Babel, which was raised shortly after the deluge, A.C. 2247,) may be considered as the most ancient structure of the kind. It consisted (according to Strabo) of eight square towers, one above the other, gradually decreasing in breadth, with winding steps from the bottom to the top on the outside ; in the uppermost tower, an apartment was fitted up for astronomical purposes. It was improved by Nebuchadnezzar, to whom is also attributed the construction of the hanging gardens formed round the palace, on the western bank of the river Euphrates.

There was also a bridge over the river Euphrates, at each extremity of which was erected a palace, and a communication formed between them by means of a subterraneous vault under the channel of the river.

The quays were likewise celebrated, as also the walls of the city, which were built in a square form, of an immense thickness, surrounded by a

ditch, and flanked with towers, and from them one hundred gates of brass led to the city in various directions.

Nineveh was also a city of immense extent and splendour ; it was surrounded by thick massive walls, one hundred feet in height, on the top of which three chariots could be driven abreast. These walls were defended by many lofty towers, and the whole city was said to have rivalled Babylon in the magnificence of its buildings.

SYRIA.

HELIOPOLIS, now **BALBEC**, famous for a Temple of the Sun, and **PALMYRA**, or **THADMOR**, situated in the midst of a wide extended desert, still present ruins which sufficiently prove their ancient extent and magnificence.

The foundation of this latter city has been attributed to King Solomon, who also built the magnificent temple at Jerusalem, on the Mount Moriah, A.C. 1000.

ASIA MINOR.

EPHESUS, a celebrated city of Ionia, was famous for an Ionic Temple of Diana, built by Ctesiphon of Greece. At **MILETUS**, another city of Ionia, was a celebrated Ionic temple, dedicated to Apollo Didymæus.

HALICARNASSUS, in **CARIA**, was famous for the monument of **MAUSŌLUS**, king of **CARIA**, erected to him by his widow, **ARTEMISIA**; this edifice was called a **MAUSOLĒUM**, and from it all other magnificent tombs have received the same appellation. At **TEOS** was an Ionic temple dedicated to **BACCHUS**. At **PRIENE** was also an Ionic temple dedicated to **MINERVA POLIAS**. **CYZICUS**, a town in **MYRIA**, was celebrated for its ancient splendour; the inhabitants were called **CYZICENI**; this name was also given to a species of large and splendid halls among the Greeks, superbly decorated with architectural ornaments and sculpture, and which were nearly imitated by the Romans in their **cœnacula**, or supper rooms. At **SAMOS**, an island in the **Ægean Sea**, on the coast of **ASIA MINOR**, was an Ionic temple dedicated to **JUNO**.

PERSIA.

ECBATANA and **SUSA** contained magnificent royal palaces: the former was the summer, and the latter the winter residence of the kings of **PERSIA**. The grandeur of the ruins of **PERSEPOLIS** prove also the vast extent and splendour of that capital. According to **ADAMS**, the Persians erected neither temples, statues, nor altars to their deities; considering it absurd to confine within walls that principle, whose dwelling is the universe.

INDIA.

The Indian style principally consisted of vast excavations, with temples formed in them. All buildings, of whatever kind, consecrated to the offices of religion, are called Pagodas. The most ancient of these is thought to have been in the island of Elephanta ; it is an immense excavation hewn out of a solid rock, and formed into a spacious area. Other similar excavations exist in the islands of SALSETTE, CANARAH, and ELLORA : splendid temples were afterwards raised, as those at SERINGHAM and CHILLAMBRUM. BENARES, the ancient seat of Braminical learning, was famous for a temple, a column of which, still preserved, stands pre-eminent in eastern art for its richness and variety of composition.

EGYPT.

MEMPHIS, one of the principal cities in Middle Egypt, was built by Menes, or Misraim, the founder of the Egyptian monarchy, A.C. 2188, who is said to have invented the art of cutting and hewing stones. Near this city stood the famous Pyramids, (supposed to have been the burial places of the ancient kings of Egypt,) the largest of which covered 435,600 square feet at its base ; the side being 660 feet in length, and 550 feet in perpendicular height. Near one of the Pyramids stood the enormous Sphinx of Ghiza. Not far

from this figure were the mummy pits, or subterraneous vaults, with niches in their side walls to contain the embalmed bodies of the Egyptians.

In the vicinity of the City of ARSINOË was the immense Lake of Mœris, dug by the command of the king of that name, in order to contain the waters of the Nile when they rose to an unusual height ; it communicated with the river by means of several canals. Near this was constructed the famous labyrinth, (the work of twelve joint kings) ; it consisted, according to Herodotus, of twelve palaces, and three thousand houses, built of marble, all under ground, or covered over, communicating with each other by innumerable winding passages ; the intricacies of which gave rise to its appellation. This labyrinth was imitated by Dædalus at Crete, and it is considered as one of the most famous in classical history.

The inhabitants of Arsinoë, which city was situated on the western shore of the Nile, (according to Strabo,) paid the highest veneration to the crocodile. They nourished these animals while living, and after death embalmed their bodies, and buried them in the subterraneous cells of the great labyrinth.

The palace, or burial place, of OSYMANDIAS, was also eminent, being said to contain the most ancient library ; it was situated at THEBES, one of the principal cities in Upper Egypt, famous for its hundred gates, and four magnificent temples ;

near which city, Thebes, stood another superb temple at Tentyra.

At SAIS, one of the principal cities in Lower Egypt, were many temples, built by King Amasis; in one of them, dedicated to Minerva, was a room of a single stone, twenty-one cubits long, fourteen broad, and eight high, brought by water along the river Nile from the Island of Elephanta.

Near the City of ALEXANDRIA stood two obelisks, which received the appellation of Cleopatra's Needles. Pompey's pillar, of red granite, having a capital adorned with palm leaves, deserves also the notice of the student; nor must we omit to mention the Watch-Tower of Pharos, four hundred feet in height. In the city stood the celebrated library collected by the Ptolemies.

Sesostris is said to have erected many temples and columns, in commemoration of his victories, in various parts of Egypt; two great obelisks, supposed to have been built by him, were understood to have been taken to Rome in the time of the emperors.

The OASIS OF SIEVA, in the western desert, is generally imagined to have been the spot on which stood the famous temple of Jupiter Ammon.

The sacred edifices and other structures of Egypt, were usually built with very thick walls, composed of large massive stones, and the roofs formed of immense blocks of the same material in single layers; the decorative parts of their temples

presented a great number of columns, with narrow inter-columniations of various figures on the plan ; they were mostly without bases, the shafts frequently fluted, the capitals sometimes consisting only of a simple abacus ; in other instances shaped like a bell reversed, and often embellished with the leaves of the palm and lotus ; the entablatures were formed of a few simple, bold, projecting members, and the whole order generally assumed a heavy appearance. The entrance doors were of large proportions, their sides were not always vertical, but usually decreasing in breadth towards the top. The ascent to the temples was formed by several small flights of steps, with spacious landings between them, so that the whole approach occupied a considerable space before the building ; it was often enclosed on the sides with a low balustrade, but more commonly with rows of sphinxes, of a gigantic size ; as at the approach to the great temple at Carnak, and in several other instances.

The walls internally were adorned with painted hieroglyphical figures, and representations, rudely sculptured, of such animals as were held in veneration by the people. A total ignorance of the construction of the arch seemed generally to prevail in the buildings of Egypt, although Belzoni, the intrepid traveller of our own day, professes to have discovered several specimens of arches at Thebes ; he also gives a description of

various extensive tombs under ground at Gour-nou, consisting of spacious halls, passages, and staircases, which were all of necessity enclosed, or they would have been subjected to the falling in of other surrounding excavations of a similar nature. These boundary walls were massive, and composed of bricks; and in them, over the entrances to the halls, were high majestic arches, connected with the walls themselves, and formed also of brick, with key stones as at the present time.

The following works were considered so great among the ancients, that seven in particular, were by them called, the wonders of the world :

1. The Colossus at Rhodes.
2. Thé Sepulchre of Mausōlus, king of Caria.
3. The Egyptian Labyrinth.
4. The Pyramids of Egypt.
5. The Temple of Diana at Ephesus.
6. The Statue of Jupiter at Olympia, seventy-five feet high, formed in gold and ivory by the celebrated Phidias.
7. The walls and hanging gardens of the city of Babylon.

To these are sometimes added the Temple of Solomon, the Palace of Cyrus, and the Watch-Tower of Pharos, all of which were of great size, and possessed much beauty and magnificence.

SECTION III.

BEING now arrived at the third division of our subject, we will enumerate, in the first place, some of the principal states and towns in Greece, Italy, and the adjacent islands, distinguished for architectural excellence, mentioning the most important works in each; and the names of such of their inhabitants as were celebrated as architects or sculptors. We will then proceed to detail the orders and other parts of the architecture comprehended in these edifices.

IN THE PELOPONNESUS.

EPIDAUROS, a town of Argolis, was famous for a temple dedicated to Æsculapius.

AMYCLÆ, in Laconia, possessed a splendid temple of Apollo.

BASSÆ, near Phigalia, in Arcadia, was famous for a Temple of Apollo Epicurius.

CORINTH was celebrated for an uncommonly rich display of architectural beauty, and gave rise to the elegant order which takes its name.

OLYMPIA, a town of Elis, was famous for a Temple of Jupiter Olympius, to whom were dedicated the Olympic Games, which were celebrated every fifth year; these games were the chief; the others being the Pythian, near Delphi, in honour of Apollo; the Isthmian, on the Isthmus of Corinth, in honour of Neptune; and the Nemean, at Nemea, in honour of Hercules. The exercises

used at these games were the πενταθλον, which consisted of δρομος, running; αλμα, leaping; πυγμαχη, boxing; δισκος, quoits; παλη, wrestling.

There was also a contest in which boxing and wrestling were united, called παγκρατιον, pancratium.

The place where the exercises were exhibited, and the Athletæ, and youth trained, was called the Stadium, or παλαιστρα, palæstra.

There were uncovered walks attached to the Greek palæstra, περιδρομιδες, peridromides.

The apartment for exercising the youth, εφηβαιον, ephebeum.

The dressing and undressing room, αποδυτηριον, apodyterium.

The apartment for anointing, ελαιοθεσιον, elæothesium.

The apartment for sprinkling the combatants with sand after anointing, κονιστηριον, conisterium.

That part of the Stadium where the horse and chariot races were performed was called ιπποδρομος, hippodromus; the course began at the αφεσις, carcer, and ended at the τελος, meta.

To the palæstræ were frequently attached baths, comprising a frigidarium, tepidarium, caldarium, laconicum, and sometimes a natatio.

The prize in these games was a palm branch, palma, which was carried in the hand of the victor. At the Olympic Games it was a wreath of wild olive; at the Pythian, a crown of laurel; at the Isthmian, a garland of pine leaves; and at the

Nemean, a crown of parsley. The athletic games among the Greeks were called iselastic, *εισελαυνω*, because the victors, drawn in a chariot with white horses, and wearing crowns on their heads, were conducted with great pomp into their respective cities, which they entered through a breach made in the walls for that purpose.

IN GRÆCIA PROPRIA.

ATHENS, the chief city of Attica, was founded by Cecrops, A. C, 1556. Its harbours were the *Πειραιεύς*, Piræus, fortified with a wall, enclosing the town and harbour; this port had five porticoes connected, called *μακρά στοα*, or long portico; the *Μουνυχία*, Munychia, and the *Φαληρον*, Phalerum.

This city was the seat of learning, the arts, and sciences, which were carried to the summit of perfection by the assiduity of Pericles; and within its circumference were contained the following most elegant classical works:

The *ακροπολις*, or citadel, which was built by Cecrops, contained several magnificent edifices; in the centre stood the Temple of Minerva, *Παρθενον*, Parthenon, or *Εκατομπεδον*, Hecatompedon, of the Doric order. It was built of marble; and on the front of the entrance were beautifully represented, in alto relievo, the circumstances relating to the birth of Minerva. In the metopes were sculptured the combats of the Centaurs and Lapithæ. This temple contained the colossal

statue of Minerva, worked by Phidias in gold and ivory.

PRINCIPAL DORIC BUILDINGS.

The *Οπισθοδομος*, *Opisthodomus*, or Public Treasury.

The Temple of Minerva without wings, called *Νικη ἀπτερος*.

The vestibules to the citadel, *Προπυλαία*, *Propylæa*.

The Temple of Theseus, built by Cimon ; in the metopes of the east front were represented ten of the labours of Hercules, and on the returns of the portico, eight of the achievements of Theseus himself, four on each side.

The choragic Monument of Thrasyllus.

The Temple of Augustus.

The Doric Portico.

PRINCIPAL IONIC BUILDINGS.

The temple on the banks of the Ilissus.

The Temple of Neptune, surnamed Erectheus, which contained a salt spring. Minerva Polias, protectress of the city. *Πανδροςος*, *Pandrosus*, dedicated to Pandrosus, daughter of Cecrops.

The Temple of Ceres.

The Aqueduct of Hadrian.

PRINCIPAL CORINTHIAN BUILDINGS.

The choragic Monument of Lysicrates, or Lantern of Demosthenes ; round the frieze was

represented the story of Bacchus and the Tyrrhenian pirates, in basso relievo.

The octagon Tower of Andronicus Cyrrhestes, or Tower of the Eight Winds, which were represented by figures on the frieze.

Boreas . . .	Βορεας . . .	North
Cæcias . . .	Καικιας . . .	North-east
Subsolanus .	Απελιωτης .	East
Eurus. . . .	Ευρος . . .	South-east
Notus	Νοτος . . .	South
Libs	Διψ	South-west
Occidens. .	Ζεφυρος . . .	West
Corus	Ζκειρων . . .	North-west

The Stoa, called Ποικιλη, Pœcile from the various curious paintings it contained by eminent masters ; in these paintings were represented the taking of Troy ; the succours given by the Athenians to the Heraclidæ ; their battles with the Lacedæmonians at Oenœe, with the Persians at Marathon, and with the Amazons in Athens. At the entrance was the Statue of Solon.

The Arch of Hadrian

The Monument of Philopappus

The Temple of Jupiter Olympius.

We will now proceed to notice the Greek *Αγορα*, or Forum, which was principally appropriated to the meetings of the senate, and the assemblies of the people ; in many instances it also served as a

market and trading place, and consisted usually of, (See Plate 1.)

1. The open Space, or *Αγορα*.
2. The Basilica, *Βασιλικη*, the Hall of Judicature.
3. The Temple of Isis.
4. The Temple of Mercury.
5. The Entrance to the Senate House.
6. The Senate House, *Αρχαιον*.
7. The Treasury, *Οπισθοδομος*.
8. The Prison, *Φυλακη*.
9. Double Porticoes for merchants and other traders to meet.

The Gymnasia were capacious buildings, consisting of several parts; a *Παλαιστρα*, *palæstra*, and *Στοιαι*, porticus, with *εξεδραι*, *exedræ*, and seats for spectators; the *Σφαιστηριον*, *sphæristerium*, a place appropriated to the exercise of the ball; also apartments for philosophers and professors in the arts to deliver their lectures; these Gymnasia were surrounded with uncovered walks, a garden, and a sacred grove; the chief were the *Λυκειον* Lyceum, the *Ακαδημια*, *Academia*, and the *Κυνοσαργες*, *Cynosarges*.

The theatres of the Greeks were usually of a semicircular form, and divided into the following principal parts :

Προσκηνιον, the stage.

Παρασκηνιον, retiring and dressing room.

Επισκηνιον, scene room above the stage.

Βροντειον, a room under the stage, where were

brazen vessels filled with stones, with which they imitated the noise of thunder.

Ορχηστρα, orchestra, where were performed the dances and the chorusses ; in the centre was the θυμελη, or pulpit, under which was the Υποσκηνιον, for the music.

Κοilon, cavea, for the spectators, divided into three parts, one above the other ; the lowest for persons of distinction and magistrates, the middle for commoners, the uppermost for females. These ranges were separated by passages, διαζωματα. Behind the cavea porticoes were formed as a retreat for the spectators in case of rain.

The Theatre of Bacchus, and the Ωδειον, Odeum of Regilla, were the most celebrated.

The dwelling-houses of the Greeks commonly consisted of the following divisions on the ground floor ; they were sometimes raised more than one story in height, so that stairs must have been used ; but their situation on the plan has never been exactly ascertained. (See Plate 2.)

- a. Θυρορειον, Thyroreum, entrance passage.
- b. Stabula, stables.
- c. Cellæ ostiarii, porter's lodges.
- d. Courts.
- e. Peristyle of the Gynæconitis, or portion allotted for the women.
- f. Common triclinia.
- g, Pastas, or vestibule.
- h. Thalamus.

- i. Amphithalamus.
- k. Square œci. }
- l. Great œcus. } οἶκος,
- m. Mesaulæ.
- n. Hospitalia, rooms for guests.
- o. Vestibule.
- p. Great peristyle.
- q. Bibliotheca, library.
- r. Exedraë, rooms for conversation.
- s. Cyzicene Œcus, dining hall.
- t. Pinacothecæ, (πιναξ θηκη), picture rooms.

Mesaulæ were the courts forming the separation between the andronitis, the men's apartments, and the gynæconitis, the rooms for the women.

ELEUSIS, a town of Attica; here was a temple of Ceres and Proserpine, which, with the three temples before-mentioned, viz., Diana at Ephesus, Apollo at Miletus, and Jupiter Olympius at Athens, were considered the four most beautiful in antiquity.

THÆBÆ, the principal city of Bœotia, was distinguished for its seven gates, hence called ἑπταπυλος, septem portas habens.

DELPHI, a town of Phocis, was famous for the Oracle of Apollo, and a temple built by Trophœnius.

THESSALONĪCA, a city of Macedonia, presents the remains of a Corinthian building, called the Incantada, whose peculiarity consists in the addition of an attic above the Order.

Near **SUNIUM**, a promontory of Attica, stood a Doric temple of Minerva.

In the island of **ÆGINA** was a Doric temple of Jupiter Panhellenius.

The island of **SICILY** afforded many ancient works of art.

SYRACUSE, its capital was built A.C. 732, by Archias of Corinth. Here was a Doric temple of Minerva. Ancient subterraneous vaults or catacombs are also to be found; they are cut through strata of soft stone, in long alleys. At stated distances were circular rooms, with an aperture in the roof to admit light and air: in the walls of these rooms were recesses to receive the dead.

The **LAUTUMIÆ** was a prison of immense extent, cut out of the solid rock.

The **EAR** of **DIONYSIUS**, also an excavation out of a rock.

At **AGRIGENTUM**, another city of Sicily, were the Doric temples of Juno Lucina, Concord, and Venus.

At **SELINUS** were three Doric temples, one of which was three hundred and thirty feet long, and thirty-nine wide.

At **SEGESTA** was also a Doric temple.

The general style or order of the ancient temple was chosen according to the deity to whom it was dedicated. Thus, they were circular, to Vesta, Sol, Luna; open, to Jupiter; Doric, to Mars,

Minerva, Hercules ; Ionic, to Juno, Diana, Bacchus ; Corinthian, to Venus, Flora, and the Muses.

Among the principal Greek architects may be enumerated, A.C.

Dædālus, who constructed the Cretan

Labyrinth 1240

Epēus 1209

Hermogēnes of Caria 895

Theodōrus 718

**Trophōnīus of Bæotia } who built the Tem-
Agāmēdes }
ple of Apollo at Delphi 546**

Spinthārus of Corinth 546

**Ctesīphon of Athens, the Temple of }
Diana at Ephesus } 544**

Libon, the Temple of Jupiter Olympius.. 457

**Ictinus } the Parthenon 442
Callicrātes }**

**Satyrus } the Tomb of Mausōlus 356
Petus.... }**

**Dinocrātes of Macedonia, the City of
Alexandria in Egypt 331**

**Sostrātus of Cnidos, the Watch-Tower of
Pharos 269**

Hermodōrus of Salamis 103

Nicomēdes 90

Among the principal sculptors are the following, whose names we cite, as their art, from its abundant use in the Grecian public buildings, is united most intimately with that of our present subject.

	A.C.
Anthermus of Chios	539
Bupälus of Clazomäne	538
Callimächus, inventor of the Corinthian Capital	532
Alcamènes, two celebrated bass reliefs of Pentelican marble and colossal size, Hercules and Minerva	448
Phidias, the Statue of Jupiter, at Olympia, and Minerva, at Athens	445
Scopas	430
Lysippus of Sicyon	350
Chares, the Colossus at Rhodes	345
Praxitéles, a celebrated Statue of Venus ..	340
Polyclètes of Sicyon	232
Euphränor of Corinth	176
Arcesiläus	72
Diogènes	28
Agessander of Rhodes } the Statue of the Polydōrus } Laocoon A.D.	76
Athenodōrus	

IN ITALY.

ROME was founded A.C. 752 by Romulus ; it was called Septicollis, being built upon seven hills. Romulus built only on the Palatine ; Tullus added the Cælian ; Ancus Marcius, the Janiculum and Aventine ; Servius Tullius, the Viminal, Quirinal, and Esquiline. Besides these, there were also the Vatican and Capitoline Mounts ; on the latter

was built the Capitol, comprising temples to Jupiter, Juno, and Minerva: near these were the Temples of Terminus, Jupiter Feretrius, and the Cottage of Romulus and Remus. Below the Capitol, (the descent from which was by one hundred steps), was the ancient Forum, comprising the Comitium, or that part of it, where the assemblies of the people were held; the Curia or Senate House; the Columna Milliaris, whence distances were reckoned by the viæ or roads to different parts of the empire. Around the Forum, were situated Basilicæ, wherein the Courts of Justice sat; porticoes were likewise attached, adapted to the purposes of exercise, and for the transaction of business. There were also the Fora Augusti, Trajani, and Nervæ, all which were used for the purposes of markets.

Of the temples in Rome, the following are the most celebrated.

Of the Ionic Order.

The Temple of Concord.

———— Fortuna Virilis.

Of the Corinthian Order.

The Temple of Jupiter Stator.

———— Antoninus and Faustina.

———— Mars Ultor.

———— Peace.

———— Vesta.

———— Jupiter Tonans, which was

erected to Jove the Thunderer, by Augustus, in commemoration of his escape from lightning on his return from Spain, when a slave was killed close by his side.

The double temple of Rome and Venus.

The Basilica of Antoninus.

The Temple of Bacchus, of the Composite Order, and that of Faunus, of the Ionic and Corinthian, were both of a circular figure.

The Pantheon was a temple dedicated to all the gods; it was of a circular form, with seven Exedrae, or Chapels, in the interior: the Corinthian Portico is supposed to have been built by Marcus Agrippa, as would appear from the following inscription visible on the frieze:

M. AGRIPPA, L. F. Cos. tertium, Fecit.

The Temple of Janus, dedicated to that deity, built by Numa Pompilius, which was open only in time of war.

The Temples of Minerva Medica, and Venus Erycina.

The principal amphitheatre in Rome was built by Vespasian and Titus, and called the Coliseum; it comprised four heights of orders, the Tuscan, Ionic, and two Corinthian; and was an elliptical building of immense extent. The space allotted for the combats of the gladiators was called the Arena, which, as a security against the irruption of the wild beasts, was surrounded with a canal, *εὐπτερος*, an iron railing, and a low wall:

the part round the Arena was called the Podium, where the senators sat; here also was the seat of the emperor, called the Suggestum, elevated like a tribunal, and covered with a canopy, denominated the Cubiculum: the Podium was raised ten or fifteen feet above the wall which surrounded the Arena. The Equites sat in fourteen rows behind the senators; the seats of both were covered with cushions; the people were ranged behind all; their seats of stone, without covering, were called Popularii, the entrances to them, Vomitoria.

The Theatre of Marcellus was also a large semicircular theatre, consisting of two heights of orders, Doric and Ionic.

The Circus Maximus, built by Tarquinius Priscus, was a building of a compound figure with parallel sides, one end semicircular, and the other segmental, appropriated to foot, horse, and chariot races in common; at one extremity were several openings, from which the horses started, at a point called the Carcer; in the middle of the Circus, and nearly the whole of its length, was a low wall, called Spina, at either end of which were three columns on one base, called Metæ, and round these the horses and chariots turned, leaving the Spina and Metæ always on their left hand.

Sunt quos curriculo pulverem Olympicum
Collegiasse juvat, metaque fervidis
Evitata rotæ, palmaque nobilis
Terrarum dominos evehit ad Deos.

Horace, Lib. I. Carmen 1.

In the middle of the Spina was an obelisk, brought from Egypt, and raised in the Circus by Augustus. Near the first Meta, whence the horses started, were seven other columns, called Falæ, one of which was taken down for each round, as the chariots were usually driven seven times round the course. The exercises in the Pentathlon, or Quinquetium, (cursus, saltus, pugilatus, lucta, disci jactus,) were performed in the Circus. The venationes, or combats of animals with each other, and those of gladiators with wild beasts, (bestiarii), were also exhibited there. The representation of sea fights, (naumachia), was also made in the Circus Maximus, and in the Naumachia Domitiani.

The Cerci Flamini, Antonini, and Aureliani, were also celebrated edifices.

The Romans had Palæstræ much resembling those of the Greeks ; the uncovered walks attached to them were called Xysti.

The Roman theatres were in the form of a semicircle ; the Scena, or part for the actors, consisted of—

Postscenium, space behind the stage.

Pulpitum, where was the declamation.

Proscenium, where the pantomimes were performed.

Orchestra, where were the dances.

The scenery was concealed by a curtain, (aulæum), which was drawn down, (premebatur),

when the play began, and drawn up, (*tollebatur*), when the play was finished. The part for the spectators was called the *Cavea*, the seats, (*cunei*), were raised one above the other; the passages separating the different ranges were termed *Præcinctiones*.

Rome boasted of several Triumphal Arches and Porticoes.

Of the Corinthian Order.

Arch of Constantine.

Portico of Octavia.

———— Septimius Severus.

Frontispiece of Nero.

Of the Composite Order.

Arch of Titus.

———— Septimius Severus, adorned with bass-reliefs representing the triumph of Severus over the Parthians.

———— the Goldsmiths, adorned with Composite pilasters.

The triumphal columns of celebrity were those of Trajan and Antonine, of the Doric Order; and a rostrated column erected in honour of Duilius.

The *Thermæ* or Baths, were very magnificent, the basin, (*lacus*), wherein they bathed was called (*Piscina*) the reservoir, (*Castellum*): they contained also peristyles, groves, saloons, and reading-rooms; the most celebrated were those of Agrippa, Caracalla, Nero, Vespasian, Titus, Dioclesian, Constantine, and Paulus Æmilius.

The principal Tombs were those of Augustus, Hadrian, Caius Cestius, Cecilia Metella, and Alexander Severus.

Bridges were very numerous in and near Rome; the chief were the Pons Ælius, built by Hadrian; Pons Æmilius, built by Antonine, of white marble; Pons Senatorius or Palatinus, finished by Lucius Mummius; Pons Triumphalis, passed over by the victors at the games, and others who triumphed, on their way to the Capitol.

The Aqueducts were works of great celebrity, the chief of which were the Aqua Appia, and the Aqua Claudia, the latter conveyed the water from Tusculum to Rome, a distance of seven or eight miles. Some of these aqueducts consisted of long ranges of arches, placed in rows one above the other, the whole structure in some parts being one hundred feet high.

The Cloaca Maxima or Great Sewer, for draining the city, was begun by Tarquinius Priscus, and completed by Tarquinius Superbus. It was an immense arched drain, which extended under the principal streets of the city, and branched by smaller channels into all the surrounding lanes and less frequented parts into the Tiber.

We must also mention their public paved ways, called Viæ; the principal of which was the Via Appia, called the Regina Viarum, proceeding from Rome to Capua, and thence to Brundisium. The Via Flaminia, through Etruria and Umbria to Ariminum. The Via Aurelia, along the coast of

Etruria. These Viæ were divided into three parts, the central division was paved for pedestrians, and that on either side gravelled for carriages and horsemen. Small stones were placed at certain distances to assist persons to mount on horseback, and higher ones, called *Milliaria*, were occasionally added for the purpose of marking distances.

The private houses of the Romans shall be next considered, they consisted generally of—See Pl. 3.

- a.* Vestibulum
- b.* Atrium, Great Hall
- c.* Alæ Atrii, Wings of Hall
- d.* Cellæ Familiaricæ
- e.* Courts of the Offices
- f.* Tablinum, Place for Records
- g.* Cavædium
- h.* Exedra.
- i.* Bibliotheca
- k.* Cyzicene Œcus
- l.* Gardens
- m.* Pinacotheca.
- n.* Embroidery Room
- o.* Peristyle Impluvium
- p.* Vernal
- q.* Summer
- r.* Winter
- s.* Cella frigidaria, cold
- t.* Calida piscina, tepid
- v.* Cella tepidaria, warm
- w.* Cella Caldaria, or Laconica, Sudatories
- x.* Cubicula, Bedchambers

} triclinia

} baths

Their Villas were each divided into three parts, Urbana, Rustica, and Fructuaria. The first contained chambers, baths, tennis-courts, (coryceum), terraces and Xysti. The second contained accommodations for the various servants and workmen, stables, &c. The third consisted of oil and wine cellars, granaries, store-houses, and repositories for preserving fruits.

Adjoining to the Villa Rustica, were places for keeping fowls, gallinarium; geese, chenoboscium; ducks and wild fowls, nessotrophium; birds, aviarium; bees, apiarium; pigsties, suile. There were also flower and kitchen gardens, hortus pin-guis; and a park for deer and wild animals, the-riotrophium.

At LAURENTINUM was the winter Villa of the younger Pliny, on the sea coast: it was beautifully situated and surrounded with gardens, and a Gestatio or Circus was added for the exercises of riding and driving. Pliny had also a magnificent summer Villa in Tuscany.

At TIBER, now TIVOLI, was a Corinthian temple of the Tiburtine Sybil; here were also the ruins of a Villa built by Hadrian; and some remains still exist of the Villa of Mæcenas; near this place it is believed, stood the Villa and farm of Horace.

At TUSCULUM was a Villa of Cicero, called Tusculanum. Between Naples and Mount Vesuvius are magnificent and interesting relics of the cities of Herculaneum and Pompeii.

AT BAIE was the Pons Baianus, a bridge of boats, constructed by Caligula.

VERONA presents the remains of a celebrated amphitheatre of an elliptical figure, and consisting of three heights of arcades with pilasters.

PÆSTUM is famous for three ancient temples of the Grecian Doric Order.

Before we conclude this branch of our subject, we will advert to the ancient relics still existing at NISMES in France, La Maison Carrée, and the celebrated aqueduct called Le Pont du Gard, which consisted of three rows of arches, one above the other, the whole height being one hundred and eighty feet.

A Bridge of a single arch over the Allier in France, near Brioude in Auvergne, the abutments of which were one hundred and ninety feet distant from each other.

At PARIS are the remains of an edifice, supposed to have formed the baths connected with the palace of the Emperor Julian.

A Bridge built over the Tagus, near Alcantara in Spain, in the time of Trajan.

Across the RHINE was a wooden bridge, built by Julius Cæsar.

The PONS TRAJANI across the Danube, was famous for its size and magnificence. Upon it were inscribed the words ;

"Providentia Augusti vere Pontificis, Virtus Romana quid non domet? Sub jugo ecce rapidus Danubius."

SALONÆ, the principal city of Dalmatia, was celebrated for the ruins of a palace of Dioclesian, near Spalatro.

Among the principal Roman architects, may be enumerated Cossutius who followed the Grecian style, and was employed by Antiochus the Great to finish the Temple of Jupiter Olympius at Athens, A. C. 196.

Scaurus, who built many splendid theatres; Curio, who constructed moveable theatres, so that two could be brought together to form an amphitheatre.

M. Vitruvius Pollio, A. C. 45.

Valerius, who built the Pantheon.

Celer and Severus, the Golden Palace of Nero.

Rabirius, a palace of Dioclesian.

Frontinus, Aqueducts in the reign of Nerva.

Apollodorus of Damascus, Trajan's Column and Bridge across the Danube.

Detrianus, in the reign of Hadrian.

Isidorus, { in the reign of Justinian, built
Anthemius, { the Church Della Santa Sophia,
 { at Constantinople.

Palladio, Scamozzi, Vignola, Alberti, De Lorme, Serlio, Viola, Cataneo, Boullant, Barbaro, were called the ten modern masters.

The Roman sculptors were not very celebrated, most of the ancient works in that city being wrought by Grecian artists.

In the fine arts, Greece surpassed all contem-

porary nations, and it may not be too much to add, all that have flourished since; and the monuments, which yet remain in its ancient cities, form the best models for imitation to the artists of the present time. The Greeks were the parents of that system of architecture, which was afterwards adopted and modified by the Romans, and from these two nations we derive the greater part of our scientific terms, the chief of which we will now particularize.

The Orders in architecture are five; Tuscan, Doric, Ionic, Corinthian, Composite.

The Romans employed all the five Orders; the Greeks only three, Doric, Ionic, Corinthian. The parts essential to form an Order, are the Column, and its Entablature; the Pedestal is an accessory.

The Pedestal is divided into three principal parts, the base, the die, and the cornice.

The Column is divided into three; the base, the shaft, and the capital.

The Entablature is divided into three; the architrave or epistylum, the frieze or zophorus, and the cornice.

These are again subdivided into smaller members, called mouldings, the regular forms of which are eight in number. See Plate 4. Fig. 1.

1. Fillet or Annulet, (Annulus), used to separate the others.

2. Astragal, (Αστραγάλος).

3. Torus, (Τόπος) used to bind the column.

4. Cyma-reversa, or Ogee, } as supports.
5. Ovolo,
6. Scotia, (Σκοτος).
7. Cyma-recta, (Κυμα), } as coverings.
8. Cavetto,

TUSCAN ORDER, FIG. 2.

The Pedestal, when used, is very plain.

The Base includes the fillet.

The square block under the Torus is termed the Plinth.

The Shaft is attached to the fillet of the Base by a hollow, called Apophyge, (Αποφυγη,) the upper fillet and astragal form part of the Shaft, the curve of union with these mouldings and the shaft is called Apothesis, (Αποθειςς.)

The Shaft is never fluted.

The Capital consists of the necking and mouldings, crowned with a square block, Abacus, (Αβαξ), and a fillet.

The Architrave has a fascia and a tenia.

The Cornice has a flat face called a Corona, or Larmier, (the under side of which is the soffit or plafond), the mouldings under it are termed bed-mouldings; the fillet above the Corona belongs to it; and the cyma-recta and the fillet above it, are called the Cymatium.

GRECIAN DORIC ORDER.

(See Plate 5, Fig. 1.)

This Order is generally used without a pedestal, always without a base. The Shaft has mostly

twenty flutes. A sinking (channelure) under the necking (hypotrachelion). The Capital consists of small annulets, an echinus (ἐχίνοϛ), and an abacus. In the frieze the edge of the triglyph (τρία γλυφίς) which consists also of the femur (μῆροϛ), is placed on the exterior angle; the metopes (μετὰ ὠψί) are not square; the capital of the triglyphs belongs to the frieze. In the cornice are mutules with guttæ over the triglyphs and metopes; the cymatium often has lions' heads placed along the cyma-recta or echinus, and used as water-spouts.

ROMAN DORIC ORDER.—Fig. 2.

This Order has sometimes a pedestal, a base, with a plinth and other mouldings; the fillet in this and the remaining Orders belongs to the shaft. The shaft is sometimes cut with twenty flutes, (striges).

The necking of the capital is often adorned with roses and husks.

The Architrave has a fascia with a tenia, the small fillets under the tenia are each termed a regula, the drops under the regula, guttæ. The frieze is enriched with triglyphs, the centre of which must be over the centre of the column, the metopes must be square, and may be filled with ox-skulls and pateræ.

The Cornice has the capital of the triglyphs; and a flat band with mutules, which are square, one over each triglyph.

GRECIAN AND ROMAN IONIC ORDERS.

(See Plate 6, Fig. 1, and 2)

To these Orders pedestals may be used, and bases always.

The shafts are often cut with twenty-four flutes with fillets (*striæ*) between them.

The principal distinguishing feature of these Orders is the Capital, having four spiral projections, called volutes. In the Grecian these were placed flat on the front and back of the column, leaving the two opposite sides to form what is called a balustre: the hem is the projecting spiral fillet, the sunk part is the channel, the centre of the spiral, the cathetus. In the Roman they were often placed in the same manner. The Greeks frequently placed an angular volute on the front exterior angle, showing one flat and one angular volute to each exterior face, and a balustre to each interior. The Romans also used four angular volutes, with the sides of the abacus arcs of circles.

The astragal at the top of the shaft is called by the Italians, *fusarolo*, or fuse.

The cornices were often enriched with dentils, small flat faces with narrow spaces cut between each, on a dentil band, and used in the bed-mouldings.

GRECIAN AND ROMAN CORINTHIAN.

(See Plate 7, Fig. 1.)

These Orders may have a pedestal, and always

a base; the shafts fluted as the Ionic; the capitals consist of a bell, (*campana* or *corbeille*), surrounded with two rows of leaves, eight in each row; the abaci are formed concave on each side, with the exterior angles taken off, called the horns; the angular volutes spring from the caulicoli, and are supported on a row of leaves; on each side, in the centre, are two smaller spirals, called (*helices* or *urillæ*). The cornices have dentils, and also modillions carved, with a balustre in front, and a scroll with leaves on the sides.

COMPOSITE ORDER.—Fig. 2.

This Order may have a pedestal, base, and shaft, as the Corinthian. The capital has two rows of leaves, with four large angular volutes springing from the ovolo, and an abacus, as in the angular Roman Ionic capital. The cornice has modillions or blocks, flat on the front and side faces; in other respects it is similar to the Corinthian.

In all the Orders the shafts of the columns are regularly diminished towards the top; but sometimes they have a swelling, (*εὐρασις*). The flutes in the Ionic, Corinthian, and Composite Orders, are sometimes filled to about one third of their height with a round moulding; this is called cabling.

The metopes in the Doric frieze, and the friezes in the Ionic, Corinthian, and Composite

Orders, are often ornamented with sculptured figures and foliage.

The Frieze in the Ionic Order is sometimes swelled, it is then called a pulvinated frieze.

A Fascia, face, or band, is any broad flat member.

Entablatures are sometimes supported by male figures, called Persians, Atlantides, or Telamones; or by female figures, Caryatides; or by busts placed upon a trunk, (vagina), called termini.

At the exterior angles of walls, and behind columns, are used what the Greeks called antæ, (παρασταδες); they are flat; the width of the upper diameter of the columns, never fluted; the bases differ from those of the columns, and the capitals are always composed of horizontal mouldings. In Roman architecture these are called pilasters; they diminish, and have the same bases, flutes, and capitals, as the columns with which they are used.

The projection of any moulding before the face of the one below it, is called the Ecphora, (εκφερειν).

The different Orders of temples among the Greeks are seven.

SEE PLATE 8.

1. A Temple in Antis, (ναος εν παραστασιν), where the two side walls finish with antæ, and two columns between them.

2. A Prostyle Temple (προ στυλος), which has a tetrastyle porticus in front of the antæ.

3. An Amphiprostyle Temple, (*αμφι προστυλος*), which has a porticus and posticus.

4. A Peripteral Temple, (*περι πτερον*), which has columns entirely surrounding the cella, and is hexastyle.

SEE PLATE 9.

5. A Dipteral Temple, (*δις πτερον*), which has a double row of columns round the cella, and is octastyle.

6. A Pseudo Dipteral Temple, (*ψευδος διπτερος*), which has a single row of columns round the cella, so arranged as to leave two intercolumniations from the wall, and is octastyle.

7. An Hypæthral Temple, (*υπαιθρος*), which has columns arranged as in a Dipteral Temple, and is decastyle. It has two rows of columns in the interior, and the centre is uncovered, or hypæthral.

SEE PLATE 10.

Fig. 1.—There is also a Monopteral Temple, (*μονος πτερον*), which has a circular range of columns, and is without a cella.

Fig. 2.—A circular Peripteral Temple, which has a circular cella, surrounded with columns.

Fig. 3.—The regular intercolumniations, or spaces between one column and another, are five.

1. Pycnostyle, (*πυκνος στυλος*), one and half diameters between two adjacent columns.

2. Systyle, (*συν στυλος*), two diameters apart.

3. Eustyle, (εὐ στυλος), two and one quarter diameters apart.
4. Diastyle, (δια στυλος), three diameters apart.
5. Areostyle, (αρατος στυλος), four diameters apart.

Four columns in a row are called tetrastyle, (τετραστυλοι).

Six ————— hexastyle, (εξ).

Eight ————— octastyle, (οκτω).

Ten ————— decastyle, (δεκα).

Twelve ————— dodecastyle, (δωδεκα).

The number of the columns on the flank or side of a Grecian temple was generally one more than double the number in the front; for instance, if the front were octastyle, the row of columns on the flank would be seventeen in number. In the Roman temples the number on the flank was usually one less than double the number in the front.

The Greeks first made use of timber, then brick, next stone, and lastly marble, in the construction of their buildings. Bronze was also used, as Pausanias makes mention of several edifices having been erected of this material in Lacedæmon, and a small Temple of Minerva, called, for this reason, Chalciæcus.

Pentelican Marble was employed for buildings; and Parian mostly for sculpture.

In erecting stone walls, three particular methods were adopted in laying the large cubical and oblong stones of which they were composed.

Isodomon, courses of equal thicknesses and

equal lengths. This manner as being the most beautiful, was used by them in their grandest buildings.

Pseudisodomon, courses differing in length and thickness. This method was used when the ornamental parts of style were less insisted on.

Emplecton, the front stones only wrought, the inner ones left rough, and filled in with rubble.

The Romans differed from the Greeks, in using small stones and bricks strongly cemented together. Frequently their walls were cased with small pieces of different coloured marbles, without projections, called by the Italians, umbratile.

Small square stones were laid diagonally in walls, forming what the Romans called an opus reticulatum.

The principal parts in and about the ancient temples and other buildings, were the following :—

Acroteria, (*ακρωτηριον*), small blocks placed on the vertex and on the sides of a pediment to support statues or vases.

Adytum, the most retired part in Pagan temples.

Aleatorium, the apartment appropriated in Roman dwellings to the game of the aleæ or dice.

Antefixa, the ornaments above the cornice on the flanks of ancient temples, to conceal the ends of the *ἄρμυαι*, or joint tiles.

Apotheca, (*αποθηκη*) a storehouse for corn, wine, &c.

Archeion, (*αρχειον*), the treasury of a temple.

Archivum, the apartment where the records of a state were preserved.

Aulicorum Ædes, apartments for courtiers in Roman houses.

Basilica, a room for music and plays, or the hall where merchants assembled for business.

Cavædium, the court or quadrangle within the body of a house; the surrounding roofs of the house were sloping; and the rain water was received into a gutter, (*compluvium*), and thence drained off from the Cavædium.

Cella, the interior of a temple.

Cellæ, liberti, freed men's rooms in a house.

Cellæ, lignariæ, vaults for wood.

Cellæ, servorum, slaves' rooms.

Cænatio, supper room.

Crypt, (*κρυπτω*), the under story of a temple or other building.

Crypto porticus, a gallery for walking and exercises, a terrace.

Diæta, a suite of apartments, also a council room; this term is retained by the Germans, who call certain of their councils diets.

Ædícula, a small chapel within a temple.

Encarpus, foliage arranged as festoons in the frieze and capital of an Order.

Ergastulum, a house of correction for the slaves.

Exedræ, little chapels, seats in public places.

Gynæceum est, textrinum seu conclave, apartments for matrons and young women.

Hypocaustum, (*υπο καυσιν*), a furnace.

Hypogeum, (*υπο γη*), the part of a building under ground.

Lacunar, a ceiling formed into square sunk pannels (*lacus*): **laquear**, one where the compartments are interlaced with laquei.

Lacunaria, the ceilings of porticoes formed into pannels or coffers.

Odeum, (*ωδῆον*), a theatre for music.

Œcus, a banqueting hall in Roman houses ; in the Grecian, the part where the mistress of a family and the servants worked the loom.

Opisthōdōmus, the area before the back entrance to the temples ; also the treasury or inner chamber in a temple.

Pastophoria, apartments near the temples for the priests who carried the shrine of the deity on solemn festivals.

Pedestal, a body usually square, upon which columns may be raised.

Pediment, (*fastigium*), an ornament that crowns a porticus, formed of mouldings, usually of a triangular form ; but in Roman buildings sometimes the segment of a circle ; the part within the mouldings, is called the tympanum.

Peribolus, a wall with a range of columns on the inside, enclosing an extensive area round the temples.

Peristyle, a circular range of columns ; also a range of any figure within the building.

Peristylum or Aditus, the court in front of the entrance to a palace or public building.

Podium, a pedestal round a building, broken about the several parts.

Porticus, the space around the columns in the front of a temple or other building.

Posticus, a porticus used in the back front.

Procætones, antichambers.

Pronaos, the area immediately before the *naos*, or body of the temple, often put for the porticus.

Pteromata, the walks and ranges of columns on the flanks of a temple.

Sacellum, a small temple open at the top.

Stylobate, a continued pedestal round a temple or other building.

Tholus, a word signifying a circular building, or a hemispherical roof or cupola.

Unctuarium, a room for unguents.

Zoccölos, a low square pedestal under a statue, or a step under a row of columns.

To the above list we will subjoin the following catalogue of terms, more or less connected with the ancient sacred rites, and public entertainments.

Acerra, an altar, by the Romans erected near the bed of a deceased person, on which the friends offered incense until the burial.

Ægicranes, the heads or skulls of rams, with which altars and friezes were embellished.

Agyei, obelisks sacred to Apollo, placed in the vestibules of the houses.

Altar, the place whereon offerings to the deity were placed.

Amphōra, (ἀμφι φέρω), an earthen jar or vase with two handles, to hold fruits and wines.

Aquaminarium, a vase for holy water, used both in public and private service.

Candelabrum, an ornamental pedestal to support lamps.

Canephoræ, (κανηφορος), statues representing the young females who carried calathi or baskets of flowers on their heads at the festivals of Minerva.

Genotaph, (γενотаφιον), a monument to the memory of the deceased, but not containing any of their remains.

Chlāmys, a short Grecian mantle, the only drapery ever used in the heroic style of sculpture, in which their gods and heroes were represented.

Cinerarium, a vessel to hold the ashes of the dead.

Cippus, a low column with some particular inscription. Cippi were used as landmarks; they were also found in sepulchres, of various forms, with a hollow or crater in the upper surface.

Columbaria, niches in a sepulchral chamber to contain cinerary urns.

Echea, (ἡχέω), the vases of bronze in the ancient theatres, for the better conveyance of sound.

Lararium, a domestic chapel, devoted among the Romans to the worship of the lares or household deities. The lares presided over housekeeping and

servants; the penates over the masters and their families. These deities were represented by very small images.

Patera, a flat circular vessel to contain a libation.

Prefericulum, a large brazen vessel without a handle, open like a basin; it was carried before the priests in sacrifices.

Pulvinaria, cushions upon which the statues of the gods were laid in the temples, when thanks were given for a victory.

Sarcophagus, (*σαρκοφάγος*), a stone or marble tomb to contain the body of a deceased person.

Simpulum, an earthen chalice or cup used in sacrifices.

Sphæristerium, (*σφαῖρα*), a tennis court.

Tazza, a large reservoir or basin of water, set apart for various lustrations.

Tripod, (*τρεῖς ποὺς*), a vessel standing upon three legs.

SECTION IV.

FORTIFIED castles owe their origin principally to the feudal times. The peculiarities of structure will appear from the following enumeration of their principal parts.

SEE PLATE 11. FIG. 1.

1. The building first approached was called the Sentinel House or Barbican, standing on the outside of the moat or ditch, over which was the

drawbridge, which was raised or let down by means of balances, called plyers, consisting of two timber levers, about twice the length of the bridge, joined by other timbers framed like a cross to act as a counterpoise. These swing on two upright pieces, and the bridge is raised or lowered by chains which join the ends of the plyers and the bridge.

2. The entrance to the Ballium, which was through a strong machicolated and embattled gate, between two towers, the machicolations or holes at the head of the gate, through which melted lead and scalding water were poured down, and large stones thrown upon the heads of the assailants, as they attempted to force an entrance, are shewn in Fig. 2: the gate was also secured by a herse or portcullis, (portecoulisse), consisting of several large pieces of wood, crossed like a harrow, having the bottom ends pointed with iron; this was let down when the enemy came by surprise, so quickly, as not to allow time for shutting the gates.

3. The walls of the outer Ballium or outworks; these were usually of a circular form, very high, with an embattled parapet, consisting of crenelles and merlons pierced with oilets or loop holes, Fig 3; there were steps for mounting the wall, and towers for its better defence at stated distances.

4. The wall of the inner Ballium, which was not so strongly fortified, and without towers.

5. The Keep or Dungeon, which stood on an eminence in the centre, where the besieged fled as a last resource; its walls were very strong;

it had a well within it for a supply of water, and frequently, a subterraneous passage, which conducted to the outworks, for a means of escape, when the want of provisions or other circumstances rendered it impossible for the besieged to offer further resistance. When the Keep was of a circular form, it was then called a Julliet. In large works of this kind there were also wards and dungeons for the prisoners, extending underground, sometimes as far as the wall of the inner Ballium.

Fortifications are works constructed for the defence of towns against the attacks of an assailing army. They are either regular or irregular. When built in the form of a regular polygon, with equal sides and angles, (distant about a musket shot from each other), they are called regular; when their sides and angles are unequal, then they are irregular.

Regular Fortifications are composed of the following parts in particular.

SEE PLATE 12.

Bastion, FEALN.	Counterscarp of the Ditch, <i>abcd</i> .
Faces of the Bastion, ALAE.	Flanked Angles, AM.
Flanks of the Bastion, EFLN.	Shoulder, BEL.
Curtain, FG.	Angles of the Flank, FGN.
Gorge of the Bastion, FN.	Rampart, <i>ef</i> .
Lines of defence, AG, FH.	Parapet, <i>g</i> .
Exterior side of the Polygon, AH.	Banquette or Step, <i>h</i> .
Perpendicular, CD.	

All works constructed beyond the ditch, before the body of the place, are called outworks.

All works have a parapet three toises thick, and a rampart from eight to ten. The rampart is generally elevated from ten to twenty feet, according to the nature of the place; the banquette is two or three feet higher than the rampart; and the parapet five or six above the banquette. The length of the parapet depends upon the number of guns to be employed in the battery; for one gun eight yards is generally allowed, and six yards for every additional gun. The parapet of the wall is constructed of stone or brick, but the parapet of the trenches is formed of earth thrown up, fascines, (which are branches of trees and sticks bound up in bundles), barrels, or the like. Ramparts are also surrounded by a revêtement or strong wall.

Appareille, the slope or easy ascent leading to the platform of the bastion.

Arrow, a work at the salient angle of the glacis.

Berme, the small space of flat ground left between the rampart and the scarp of the ditch, generally five or six feet wide.

Bonnet, a work with two faces to cover a ravelin.

Branche, a word applied to the extended sides of the different works, as the covert-way, ditch, &c.

Bray, a false trench to conceal a real one.

Cascans, cylindrical shafts or holes, serving as entrances to galleries, or to give vent to an enemy's mine.

Casemate, a work under the rampart with loop holes for the guns.

Cavalier, a work in the body of a fortified place, raised ten or fifteen feet above the surrounding ones.

Cordon, a line of stone entirely round a fortification, jutting out between the rampart and base of the parapet.

Covert-way, a space of five or six toises broad, extending round the counterscarp.

Cremaille, the inside line of a parapet, formed so as to resemble the teeth of a saw.

Crown works, those resembling a crown in form, with two fronts and two branches.

Cuvette, a small ditch in the middle of a dry ditch.

Esplanade, the declivity or slope from the top of the counterscarp to the level of the plain : it is also used to signify the void space between the glacis of a citadel, and the first houses of a town.

Facing, the masonry used on the bases of ramparts to preserve them from injury and the danger of falling.

Flèche, a work with two faces, constructed before the glacis.

Fort, a strong hold of small extent ; a royal fort, one whose line of defence extends twenty-six fathoms or more ; star fort, a redoubt with re-entering and salient angles.

Gabionnade, a bulwark made with gabions, which are baskets five or six feet high, filled with earth, and placed upon the batteries for covering the men.

Gallery, a covered walk across the ditch of a besieged town.

Gazons, sods, or pieces of fresh turf, cut in the

form of a wedge, and employed for lining the parapets and traverses of galleries.

Glacis, the part beyond the covert way, to which it serves as a parapet.

Guerite, a sentry box or small tower, placed on the point of a bastion, for a sentinel to guard the ditch against surprise.

Horn works, those having one front and two branches.

Lunettes, works constructed on both sides of a ravelin.

Moineau, a flat bastion raised before a curtain when it is too long, and the bastions of the angles too far distant to defend each other. Here musqueteers are usually placed to fire each way.

Orillon, that part of the bastion near the shoulder, which serves to cover the retired flank from being seen obliquely.

Outworks, and other small works of any kind are often surrounded by the chevaux de frise, a piece of timber laid horizontally, and traversed with wooden spikes pointed with iron, which is intended to defend a passage, or form a retrenchment against cavalry: a cheval de frise planted in a gap or breach is named a herisson or turnpike.

Palisades, enclosures of stakes, about nine or ten feet in length, driven into the ground at about six or eight inches asunder, and strongly braced together; when used as a work, this is called a tambour. These palisades are used to fortify or

secure the covert ways, avenues of open forts, the bottom of ditches, and all fortified posts liable to surprise, and easy of access.

Pate, a species of platform like a horse shoe in form, encompassed with a parapet; it is generally erected to cover the gate of a town.

Ramps, gentle slopes made for the cannon to be drawn up and down, and for the accommodation of the troops posted in a battery.

Ravelins, works placed before, to cover the curtain.

Redoubt, a work beyond the glacis of various forms.

Re-entering angle, that which has its vertex turned inwards towards the work.

Saigner, to empty the water out of a moat by channels under ground, so that it may be easily passed, after having laid down clays, hurdles, or the like.

Salient angle, that which has its vertex projecting outwards from the work.

Sap, a deep trench cut to make a passage into a covert way; a single sap has only one parapet, a double sap has one on each side.

Scarp, the sloping side of the ditch looking towards the field.

Sconce, a small fort erected for the defence of a narrow ford in a river.

Sillon, a work raised in the middle of a ditch, for a better defence when it is very wide.

Spurs, walls built across a rampart to join it to the walls of a town.

Subterraneous works and mines are also constructed for trains of gunpowder to be laid, in order to blow up the fortified works above them. Several other artifices for defence, of less importance, are often resorted to, according to the situation of the place and other existing circumstances.

Talus, any slope, mostly of use on the inside or outside of any work.

Tenailles, low works in the ditch before the curtain.

Terreplain, the platform or horizontal surface of a rampart.

Traverse, a trench with a small parapet, which is made by the besieged across the moat of a place.

Trenches, approaches or lines of approach, ditches made by the besiegers that they may approach more securely to the place attacked; counter trenches are those made by the besieged against the others.

Vestibule, the area or enclosed court-yard in the front of guard-houses.

SECTION V.

The course of our subject now leads us to the consideration of that distinguished style called the Gothic, which sprang up to adorn and dignify the history of the Art in the middle ages, and whose characteristic beauties entitle it to so high a place in the estimation both of the student and the amateur.

The Saracenic which is supposed to have been the parent of the Gothic, is distinguished by the loftiness of its vaultings ; the mixed forms of its curves, the slenderness of its columns, variety of its capitals, and a multiplicity of rich ornamental foliage and Arabesques. The Moorish or Mauresque, and the Arabian or Arabesque styles are simply variations of the Saracenic, and differ only in the forms of the arches and in the varieties of their ornamental foliage. These several styles appear all to have emanated from the immersion of architecture in the dark ages.

The numerous varieties of Gothic have been very differently classified. For the purposes of the present summary review, we shall present the reader with two separate arrangements of the variations in style ; in the first, we shall point out the leading features in the style of each age ; and in the second, name those portions of the principal cathedrals or chapels in England which

belong to the respective styles, adding the dates after the most approved methods. In the plates annexed, the door or window has been selected as bearing generally the most characteristic indication of the several varieties of the styles.

SAXON, A. D. 597 to 1066.

The walls very thick, generally without buttresses, semicircular arches, supported by heavy, thick columns ; diagonal mouldings ; arches springing from the capitals of the columns, without architraves.

NORMAN, A. D. 1066 to 1189.

Buildings of larger dimensions, plain but more lofty vaulting, circular pillars of greater diameter, capitals more elaborately worked, a total absence of pediments and pinnacles, and having the arches semicircular.

EARLY GOTHIC, A. D. 1189 to 1272.

The slender column, and the lancet arch ; windows with three lights, and small columns as mullions.

**PURE GOTHIC AND DECORATED ENGLISH,
A. D. 1272 to 1390.**

Clustered columns of more slender proportions ; the window heads ramified into many intersections with trefoils, quartrefoils, cinque foils, &c. ; the roofs ornamented with tracery.

FLORID GOTHIC, A. D. 1390 to 1547.

The flat or compound pointed arch ; the roofs much ornamented, the proportions very lofty. The pinnacles, canopies, &c. highly enriched ; an exact adaptation of the groins of the vaults to the heads of the windows.

The second mode of classing the styles and dates. The portions of buildings underneath mentioned are considered as belonging to the respective styles, for the chief features of each of which the reader is referred to corresponding dates in the preceding arrangement, where we have particularized the more important and striking peculiarities of each era.

ANGLO-NORMAN.

From 1190 to 1170 including the reigns of Henry I. and Stephen.

Cathedral at Rochester, west front and nave.

———— Gloucester, nave, north aisle.

———— Exeter, transept towers.

———— Ely, north transept.

———— Peterborough, choir.

———— Lincoln, older part of west front and central tower.

———— Durham, entire church.

SEMI OR MIXED NORMAN. See Plate 13.

1170 to 1220. Henry II. Richard I. John.

Cathedral at Ely, west towers and nave.

———— Canterbury, choir, tower called Becket's crown.

Cathedral at Oxford, nave and chapter house.

————— Norwich, nave and choir.

————— Wells, nave and choir begun.

LANCET ARCH GOTHIC. See Plate 14. Fig. 1.

1220 to 1300. Henry III. Edward I.

Cathedral at Lincoln, nave and arches beyond
transept.

————— York, north and south transept.

————— Carlisle, choir.

————— Worcester, transept.

————— Salisbury, uniformly.

————— Westminster Abbey, uniformly.

PURE GOTHIC. See Plate 14. Fig. 2.

From 1300 to 1400. Edward I. II. III. Richard II.

Cathedral at Exeter, nave and choir.

————— Litchfield, uniformly.

————— York, nave and west front, choir.

————— Peterborough, transept.

————— Canterbury, transept.

————— Gloucester, transept, cloisters
begun.

————— Norwich, spire and tower.

————— Ely, Our Lady's chapel.

————— Oxford } Merton College chapel.
New College chapel.

————— Westminster, St. Stephen's chapel.

ORNAMENTED GOTHIC, AND PERPENDICULAR**ENGLISH.** See Plate 15. Fig. 1.

From 1400 to 1460. Henry IV. V. VI.

Cathedral at Gloucester; choir.

————— Canterbury, nave.

FLORID GOTHIC. See Plate 15. Fig. 2.

From 1460 to the close. Edward IV. to Henry VIII.

Cathedral at Gloucester, Our Lady's chapel.

————— Oxford, roof of choir.

————— Chester, choir.

————— Winchester, exterior of choir.

————— Windsor, St. George's chapel.

————— Cambridge, King's College chapel.

————— Westminster, Henry the Seventh's chapel.

In the first arrangement of the styles, we have passed at once from the Pure Gothic to the Florid, omitting to describe the Ornamented Gothic, and Perpendicular English, which is introduced in our last mode of classification. The arches were lower than in the preceding styles, and of a compound form, being generally struck from four centres; but what formed the most striking feature, was, that the mullions in the heads of windows, instead of being turned in curves and interwoven together, were chiefly carried up in perpendicular lines: the same was also observed in ornamental panneling, which was much in use; and the greater part of the screen and taber-

nacle work in the interior of English churches seems to belong to this or a later date.

The various religious buildings, and others attached to them, to be found in the Gothic style of Architecture, consist of

Abbeys, monasteries of religious persons, having greater privileges than the other houses.

Almonry, the residence of an Almoner, one who collects and distributes alms.

Cathedral churches, the head churches of a diocese.

Chantry, a small chapel on the one side of a church.

Cells, the caves or small habitations of religious persons.

Chapter houses, those where the assemblies of the clergy were held.

Cloisters, religious houses, and covered walks around cathedrals.

Colleges, houses in which collegians reside and pursue their studies.

Collegiate churches, wherein a certain number of presbyters lived together, they were generally built near a cathedral.

Commanderies, cells to the principal houses of knights hospitalars, wherein rents and other monies were collected.

Consistories, places of assembly for the cardinals.

Convents, religious houses for monks and nuns.

Conventual cathedrals, those belonging to a convent.

Deanery, the house occupied by a dean.

Diaconicon, (*Διακονεω*), the room adjoining churches, where the sacred vestments, vessels; &c., were preserved, also called the sacristy:

Dorter, a dormitory in a monastery.

Friaries, convents of friars.

Galilee, a porch constructed at or near the west end of the great abbey churches, where the monks and clergy assembled on proceeding to, and coming from processions.

Lady chapels, places of retirement for the clergy behind the altar in churches.

Monasteries, houses of religious retirement.

Muniment house, a small strong room in churches or colleges for keeping the seal, evidences, charters, &c. of such churches or colleges, (called muniments).

Nunneries, houses for nuns..

Oratories, private chapels allotted for prayer alone.

Preceptories, cells to the principal houses of knights templars, wherein rents and other monies were collected.

Priories, convents next in rank to an abbey.

Prothyrum, (*Προθυρον*), a porch to any outer door.

Refectories, rooms for refreshment near the churches.

Vestiarium, the apartment in a monastery wherein the vestments of the monks are kept.

Churches were usually built either in the form of the Latin or Greek cross, the latter of which has all its four branches, (*croisillons*) of the same length; the Roman or Latin cross has one branch considerably longer than the other three. The height of most cathedrals was equal to the breadth of the nave and side aisles; the spires and towers as high as the length of the nave; the transept was half the length of the whole fabric; and the aisles half the breadth of the nave.

The principal divisions of the churches and the parts connected with them, were,

Aisles, the divisions on either side of the nave.
Ambones, the pulpits.

Baptistery, the place where the sacrament of baptism is performed.

Brasses, sepulchral engravings on brass plates let into the slabs in the pavement.

Carol, a pew in the cloister with carols, (*carolæ*) or inscriptions marked on the walls.

Choir, the part east of the cross; the choir is generally enclosed with a screen, on the west end of which stands the organ.

The space behind the altar is called the **Lady Chapel**.

The choir has side aisles as passages to the altar. The part behind the altar in churches not col-

legiate is called the chancel, which also may extend round the altar, and in modern churches, the eastern end in which the altar is placed, and surrounded or enclosed with latices, (cancelli).

To most cathedrals are attached a chapter house, and cloisters.

Clere-story, the story above the triforium, and roofs of the aisles.

Feretories, the stands whereon the bier was placed.

Font, the stone basin in which the water for the ceremony of baptism is contained.

Lavatory, a basin for water, with a hole at the bottom to carry off the water, placed near the altar for the use of the priest at mass.

Lectern, the reading desk.

Monument, a tomb raised to the memory of the deceased.

Nave, the part west of the cross, at the west end of which was usually the great entrance door.

Reredos, the screen or altar piece.

Rood-loft, the gallery over the entrance of the choir.

Scutcheon, a shield of arms.

Shrine, a case in which were preserved the remains of saints.

Stalls, the seats for the dean, canons, &c., in choirs.

Stoups, niches with basins for holy water.

Tabernacle work, the ornamental carved work over the stalls.

Throne, the seat for the bishop.

Transept, the part extending to the north and south ends of the cross.

Triforium, the gallery under the roof of the aisles, and below the clere-story.

Undercroft, the vaults or crypt under a church.

Weepers, small statues placed at the side of the principal figure on a tomb, representing the relatives or friends of the deceased.

The following terms designate portions peculiar to Gothic structures.

Arches were distinguished by several forms, of which the following are the chief. See plate 16.

FIG.

1. The semicircular arch.
2. The horse-shoe arch.
3. The pointed arch, described about an equilateral triangle.
4. The drop arch, about an obtuse angled triangle.
5. The lancet arch, about an acute angled triangle.
6. The tudor arch, from four centres.

7. The ogee or contrasted arch, from four centres.

8. The elliptical arch, from three centres.
Arch-buttress, (arc-boutant), an arch springing from the outer wall of the aisle and butting against the clere-story.

Base court, (basse cour), a large court belonging to a castellated mansion, around which were placed the offices and stables.

Battlement, the part above the cornice cut into embrasures or crenelles, sometimes the merlons are perforated with oïlets and loop holes.

Bay window, one that projects in two or more planes beyond the face of a wall; a bow window, one that forms the segment of a circle or ellipsis. A bay window is also termed an oriel, and a compass window.

Bench table, a low stone seat around the columns in the interior of a church, and along the walls.

Billets or billeted mouldings, cylinders carved into short lengths and applied on any flat member, chiefly to be found in buildings of the Norman style.

Boltel, the shaft of a clustered column.

Bosses, round projecting flowers placed at the extremities of raised mouldings, or at the junction of ribs in a ceiling, vaulted roof, or series of pannels.

Branches, the ribs of a vault; branched work is any foliage or ornamental carving.

Buttresses, the parts projecting square or angularly at the corners of a building, or between the windows on the sides, standing parrallel to the side wall; they are divided into stages by sloping tablets called set-offs.

Campanile or belfry, a tower for bells.

Canopy, an ornamental dripstone, generally of a curved figure, over doors, windows, or niches.

Casement, a light within the mullions of a window formed by a slender frame work; also a hollow moulding resembling the scotia.

Catherine wheel window, a term made use of when the tracery in the head of a window is formed into a large circular moulded band, divided into several compartments, which radiate and terminate with small arches at the circumference: the same term may express also any circular window.

Chapiter, the capital of a column.

Chevet, the semicircular or polygonal termination of any church or building.

Closet, any private room or small retiring chamber.

Corbel, a bracket projecting from the wall to support an arch, niche, or figure.

Corbie-steps, the battlements when rising like steps on the tops of gables.

Crest-tiles, ridge tiles covering the tops of roofs, and often very ornamental.

Croquets, small bunches of foliage, ornament-

ing the sides of pinnacles, canopies, and gables.

Dern, a door post or threshold.

Diaper, a carving of raised flowers, or painted and gilded flowers, or coats of arms, in a pannel or on a wall.

Entail, (*entaille*) ornamental carving upon stone or in wood, of the finest description; that of a less delicate or minute kind upon stone is called *fret-work*.

Finials, the large bunches on the apices of pinnacles, canopies, and gables.

Gable, the end wall of a building formed into a pyramidical figure at the upper part.

Gargle, the carved head of a serpent or animal of any kind, pierced so as to be used as a water spout, placed often along the cornices and other projections.

Gradatory, (*gradus*) the ascent by steps from the cloister to the choir in some churches: any place to which the ascent is formed by steps.

Groin, the hollow formed by the intersection of two or more simple vaults, crossing each other generally at the same height: the diagonal lines formed by such compound vaulting, are the constructive lines of the groin, these are called *cross ribs* or *cross springers*.

Hatched mouldings, triangular carvings applied as ornaments on flat members.

Label or Hood mouldings, the outer mouldings round window or door heads, either following the curve of the arch or running square, with a return at the ends, or terminating with a carved head or flower.

Lantern, a small tower or steeple glazed on the sides ; the opening into a tower above the roof is also called a lantern.

Mullions, the vertical mouldings which divide windows into lights.

Munnions, the jamb mouldings, and also those in the window heads dividing the several compartments into bays or lights.

Nebule, a projecting moulding terminating on either side in an undulating line without angles.

Nerves, the mouldings of the groined ribs of Gothic vaults.

Ogive, the branch of a vault passing diagonally, and thereby forming a cross with the other ribs ; the middle where the ogives cross each other is the key, and is generally cut in the form of a rose or other flower.

Orbs, the bosses or knobs at the intersections of the ribs of a vault.

Pannel, a small compartment enclosed with mouldings, and often enriched with quatrefoils or other ornamental figures.

Parapet, the part above the cornice carried up in a straight line along the top to cover the gutters on the roof.

Perches, projecting corbels or brackets within churches, used as stands for small images or candles.

Piers, the solid parts between arches, below their springing.

Pinnacle, a small ornamental spire used externally, chiefly on the tops of buttresses, and also internally for decoration.

Responder, a half column or pilaster attached to a wall, to correspond with the other columns.

Rood tower, that which is built over the intersection of the nave and transept in a church.

Rose window, one ramified as a Catharine wheel window.

Sill, the projecting stone under a window or door.

Spandrel, the solid part above a pier between the springing and crown of an arch.

Spire, a pyramidal or conical erection crowning a tower or turret.

Stanchions, the vertical bars of iron to divide the panes in windows.

Steeple, a building of any form above the roof.

Strike, an iron spear in a gate or railing.

Tablets or Tables, small projecting strings, mostly in a horizontal direction, the lowest is the earth or ground table; the tablet running round doors and windows, a dripstone; the upper tablet, a cornice; a projecting parapet or cornice resting on corbels, a corbel-table.

Tower, a building above the roof with its top square; when it is of a great height, and small in diameter, it is then called a turret; when the upper part of a tower is projected from the main wall, and is supported by corbels, it is called a corbel-tower.

Tracery, the ornaments of the divisions in window heads; when the lines branch out in the resemblance of leaves and other figures, they are called flowing tracery; when the mullions run through in straight lines, perpendicular tracery. The parts of tracery are ornamented with small arches and points, called foliations or featherings, the points are cusps; if these small arches are again subdivided in their curve by another cusp, this is called double feathering. A series of these small arches and cusps immediately connected assume the names of trefoil, quatrefoil, cinquefoil, according to their number.

Transoms, the horizontal mouldings dividing the lights in windows; an ornamental lintel over a door or opening.

Traverse, a gallery, loft or vaulting, crossing some part of a church.

Trellice, a screen of open metal or wood work.

Vault, a roof arched with stone, brick, or other material; the under story of a church or other building.

Zigzag moulding or cheveron, a carved Norman

fretwork, formed diagonally with salient and re-entering angles alternately joining the sloping sides, as an ornament for a moulding

SECTION VI.

The English architecture of our own day is a revival of the Roman, or more correctly speaking an adoption of the Italian style, although an attempt, and in many respects it will be admitted a laudible one, has been recently made to substitute in our most important edifices the pure Grecian. ; On these models various modifications have, it is true, been engrafted, which some writers denounce as barbarisms, and others regard with the eye of sincere faith ; with these matters of speculation, however, we shall not interfere : but having thus attended to the parent source from which the greater and best part of modern practice has sprung, we shall proceed without further circumlocution to the definition of all those technicalities and characteristic terms in use both in the essential parts and ornamental details of the art, as now pursued ; embracing public buildings, private dwellings, and aquatic architecture.

Abatjour, a sky-light, or a sloping aperture in the walls of prisons or subterraneous places for the admission of light.

Abatvoix, the sounding board above a pulpit or rostrum.

Abrevoirs, the joints between stones or bricks when laid.

Abutments or Butments, the extreme piers of a bridge joining it to the land.

Alcove, a recess or part of a chamber separated by a partition of columns or an estrade, an elevation in the floor.

Almehrab, among the Mahometans is a niche in their mosques, which directs to the temple of Mecca, to which they bow their heads when praying.

Amkas, the audience chamber of the Great Mogul.

Ancones or Trusses, modillions placed vertically on a wall.

Aqueduct, a channel formed across a valley between two mountains for the purpose of conveying the water from one to the other on a level; it is usually supported by one or more ranges of arcades. Some aqueducts are constructed under ground.

Arabesque or Moresque, a style of ornaments in painting or sculpture, in which no animals are represented.

Arcade, an aperture or a range of apertures with arched heads.

Arch, (arcus), an assemblage of materials put together in some regular curve, as a semi-

circle, an ellipsis, or a parabola. Arches higher than a semicircle are called surmounted; less than a semicircle, surbased. The intrados is the inner and the extrados the outer curvature, the crown is that part of the intrados most remote from the springing. A trunk arch is that, of which only the intrados and not the face, is seen. A rampant arch is that, where the springing on the one side is higher than on the other

Architraves, the mouldings round square headed openings, doors, or windows, often surmounted with a frieze and cornice.

Archivolt, the mouldings on the face of an arch.

Armamentary, (armamentarium) an armoury or arsenal of warlike implements.

Arris, (arête) the line of separation between two surfaces in different planes, forming the vertex of a salient angle.

Arsenal, a repository for military stores; also the place where implements of war are made.

Attic, a small height of pannelling placed above an order, it is sometimes enriched with a balustrade, sculpture, and a variety of ornaments: it is also applied to the upper floor of a dwelling-house having a flat ceiling.

Avenue, (ad venire) a long range of columns, or statues, for the decoration of the approach to a mansion.

Aviary, a building enclosed wherein birds are

kept, it is furnished with a reservoir for water, and stoves to warm the air, when necessary ; and generally surrounded with trees and shrubs.

Balcony, (balcon) an uncovered platform on the front of a building.

Ballon, a small globe or ball decorating the tops of pillars.

Balustrade, a series of small pillars swelled called balustres, standing upon a plinth, and surmounted by a light cornice. It serves to ornament an attic, or forms a parapet to terraces, bridges, or the like.

Banquets, the raised foot-ways adjoining to the balustrade or parapet on the sides of bridges.

Barbacan, a narrow canal or opening left in the walls of buildings likely to be overflowed, to drain off the water.

Barracks or Caserns, (caserne), little lodges for soldiers in a camp ; a building to lodge troops, divided into apartments for the officers, rooms for the privates, a chapel, mess rooms, orderly and guard rooms, a hospital, stables and offices, a magazine and store-house.

Basement, a high, continued, or broken pedestal, under an order ; also the sunk story of a dwelling house.

Bay, the space between any two or more solids.

Belvidere, an observatory or turret, generally a

kind of balcony attached to a dwelling house commanding an extensive prospect.

Bilection mouldings, such as are generally used on large gates and external doors, and which project before the face of the door or gate.

Blocking course, the course of stone-work laid above the cornice to serve as a parapet to a building.

Bossage or Rustic-work, the joints of masonry when channelled. See Rustics.

Bridge, a building raised over a river for the convenience of communication to the opposite shores. Bridges are mostly constructed of stone, brick, or wood, with a series of arches and piers; sometimes the arches are formed of cast iron ribs; and at others the bridge is made by iron chains or rods secured at the abutments, and acting by tension; this is called a suspension bridge.

Bronze, a compound of copper with a small proportion of tin, and sometimes other metals, of which statues and ornamental vases are made.

Bull's eye, a small circular window.

Caisson, a wooden case sunk into the water, the bottom of which is suffered to remain as a foundation for the piers of a bridge.

Cambers, flat arches over openings.

Caracol, a staircase that is in the form of a spiral curve.

Cartouches, modillions when used in internal decoration : ornaments representing a scroll of paper with some device.

Casine, (casino), a small country house on a large estate for the temporary residence of persons taking the exercise of field sports.

Ceiling, (cœlum), the inside of the roof or top of an apartment in distinction to the floor.

Centre, (cintre), a curved wooden frame-work to support the materials in the formation of an arch during its construction.

Chimney-piece, the ornamental marble, stone, or wood-work, round the opening for the fire-place, consisting of the jambs or vertical sides ; the mantle or horizontal part at the top between the jambs, the shelf or projecting part above the mantle ; the slips, pieces covering the internal sides of the jambs ; the slab, the marble, stone, or metal projecting before the grate, level with the floor, of which it forms a part ; the hearth, a continuation of the slab under the grate ; the covings, the angular or curved sides above the grate between the slips and the back of the chimney.

Coffer-dam or Batardeau, piles driven into the water so as to enclose a space, which is kept dry for the foundations of the piers of bridges to be laid.

Coffers, sunk pannels in a ceiling.

Coin or Quoin, an external corner ; the facings

of stone or brick projecting from the wall at the angles of a building.

Colonnade, a straight or circular range of columns.

Column, a pillar which is the frustum of a conoid : columns are variously named according to their decorations, form, disposition, and destination :

A. Pastoral column, representing the bark of a tree ; a **Carolytic column**, having the shaft foliated with leaves disposed in festoons ;

Rusticated columns, such as have blocks or rustics upon the shaft ; **Coupled columns**, such as are disposed in pairs so as to touch at the bases ; **Spiral or twisted columns**, having circumvolutions like a screw up the shaft ; **Inserted columns**, such as are let into a wall ; **Insulated columns**, those wholly detached ; **Median columns**, the two centre ones in a portico, having a wider intercolumniation than those adjoining ;

Astronomical columns, such as are cylindrical and built hollow, with a communication to the top, where an armillary sphere is placed for the purposes of astronomy ; **Triumphal columns**, those whose shafts are adorned with reliefs ; **Menian columns**, slender columns which support a balcony ; **Rostral columns**, those ornamented with beaks of ships in commemoration of naval victories.

Conservatory, a large building to contain curious exotics and rare plants, which are

planted in beds of fine composts of earth, the front and sides consist of large windows to admit as much light and air as possible, and flues are constructed so as to produce a greater degree of heat when necessary.

Console, an ornamented bracket placed vertically; those placed horizontally are called cantilevers.

Coping, stone laid in a slanting position on the tops of walls to protect them from the weather, and to throw the rain water into the gutters on the roof.

Corbeilles, carving representing baskets of fruit and flowers.

Corridor, a long gallery leading to the several apartments in a house.

Cottage, a hut; a small country habitation, consisting usually of one story above the ground, without a basement, and having the roof with dripping eaves.

Court, the residence of a prince; a hall of justice; the open space before a dwelling house, enclosed by a wall, railing, or fence; when the space is sunk even with the basement story it is called an area.

Cousinet, the first stone of an arch from the springing.

Cove, the hollow of a vault: a coved ceiling is one whose section is a portion of a circle on the sides, and flat in the centre.

Crescent, a series of buildings disposed in the arc of a circle.

Culvert, a small hollow circular arch, formed under ground to drain the overflowings of a river from the surrounding land.

Cupola, a roof or vault rising externally in a convex curve, either from a circular or elliptical base.

Dado or Die, the plain part of the sides of a room, between the base and surbase.

Dairy, the place in which milk is manufactured and kept ; there should be a reservoir in the centre, from which water could be forced through apertures in the pavement, or spouted over it ; the walls and stands for the milk pans should be faced with Dutch tiles for coolness ; and a square opening left in the roof, the vertical sides of which being filled with luffer boarding, the air is admitted without the rays of the sun : an apartment adjoining is fitted up with coppers and sinks, for the purpose of cleansing the various utensils ; and sometimes there are additional rooms for partaking of the luxuries of the dairy.

Dam, a bank raised in order to stop or turn the course of water.

Divan, in eastern countries, that part at the one extremity of a state apartment, which is raised and covered with cushions and em-

broidered hangings for seats, the corner ones being the places of honor : a portion of the floor at the foot of the divan is enclosed by a balustrade, and covered with rich carpets : on the outside of this is a space paved with Mosaic work proportioned to the size of the chamber, and called the attaby, allotted for the attendants in waiting : at the back of the divan is frequently a kiosk or bay window supported with corbels ; it is nearly as wide as the divan, and raised about two feet above it ; the ceiling is flat and rather lower than that of the divan ; it has windows on every side for the admission of cool air.

Dock, a large reservoir or basin in which ships are laid up : the entrance to a dock is through a narrow channel enclosed with flood gates, by means of which the water in the dock may be kept at any height, which is indicated by figures of feet or fathoms marked on one of the uprights near the gates ; these and the sides of the channel are formed of vertical and horizontal timbers braced and bound together : the flooring of planks against which the gates are shut is called the apron.

Dome, a roof springing from a circular or polygonal base, and rising externally in a convex curve ; hence every cupola is a dome ; but a dome may not always be a cupola.

Door, a framed board for closing or opening

the aperture left in an apartment for egress and ingress : folding doors are such as are made to open in two leaves, which meet in the centre when shut : double doors are two distinct doors in the thickness of a wall, used in winter apartments for the better exclusion of the cold air.

Dormer window, one that projects from the sloping sides of a roof, and stands vertically.

Draw-bridge, one so constructed as to lift up in the centre by means of chains and levers, in order to stop the passage at pleasure ; sometimes the bridge, when flat, is turned with its length to the stream, to enable small craft to pass ; this is done by means of levers and pulleys, and is then called a swing bridge.

Dressings, ornamental mouldings round windows and doors or arches on the face of a wall.

Dyke, a bank raised against a great force of water, formed in a very strong manner, broader at the base than the top, and strengthened with fascines.

Eaves, the parts of a roof which project before the face of the building.

Estrade, a French term, signifying a public walk raised from the road and enclosed by a balustrade.

Ewry, the office or apartment in the king's

household, or in that of a nobleman wherein the table-linen is kept.

Extrados of a bridge, the curvature or surface of the road-way.

Eye of a dome, an aperture formed at the summit.

Façade, (*facies*), the principal front of any building.

Flank, the side of a building.

Floor, the area or horizontal surface of a room upon which we walk : it is also applied to the different stories of a house, thus : that below the level of the ground is the basement or sunk floor ; that nearly even with the surface, the ground floor ; the one above it, the first ; the next, the second, &c.

Fret, (*fretum*), a raised or sunk ornament formed of strait grooves at right angles to each other in a series of continued compartments.

Gallery, a large passage leading to several apartments ; a room for the exhibition of painting and sculpture ; a platform or floor raised upon columns or arches, or supported by cantilevers in the interior of a public building for the accomodation of more persons than the base could contain.

Garret, (*garite*), the tower of a citadel : it also signifies the upper story of a dwelling-house, when taken wholly or partially from the roof.

Geometry, is that science which treats of the

properties, description, and relations of magnitudes : the part relative to the properties of lines is called lineametry, of surfaces, planimetry, of solids, stereometry.

Lines are either right, curved, or mixed.

Surfaces, or superficies, consist of triangles, quadrilaterals, polygons, and circles.

Solids consist of cubes, spheres, parallelopipeds, pyramids, prisms, cones, conoids, cylinders, cylindroids, polyedrons, prismoids, and cunei.

Conic sections treat of the plane figures produced by the intersection of a plane with a cone ; they are the triangle, circle, ellipsis, parabola, and hyperbola, the three last being peculiarly called conic sections.

The solids described by the revolution of some curved line about their axis, are the oblate and prolate spheroid, paraboloid, hyperboloid, and circular, elliptical, parabolic, or hyperbolic spindles.

The regular solids, or Platonic bodies are polyedrons, contained under a certain number of equal and regular plane figures.

The tetraedron, or regular triangular pyramid having four triangular faces.

The hexaedron or cube having six square faces.

The octaedron having eight triangular faces.

The dodecaedron having twelve pentagonal faces.

The icosaedron, having twenty triangular faces.

The curves of the higher orders consist of the conchoid of Nicomedes, the sinic curve; the cycloid, and the epicycloid.

The spirals are, the logarithmic, hyperbolic, and the spiral of Archimedes.

Stereotomy, is that branch of geometry which treats of the sections of solids.

Trigonometry, is that branch of geometry which treats of the calculations relating to the sides and angles of triangles, and is both plane and spherical.

Giallo antico, an ancient marble of a bright yellow colour.

Grotto, a hollow cave artificially constructed, and decorated with shells, stones, rocaille work, and fragments of architectural ornaments, &c. forming a cool retreat.

Guard-house or room, a building or room for the use of those sentinels and officers composing a guard, when off their sentry during the time of their guard; it is fitted up with low sloping wooden planes, for repose, and with a gun rack; the walls of state guard chambers are decorated with military implements.

Guillochi, ornaments in the form of bands and strings.

Hall, the space immediately beyond the entrance of a house, leading to the different apart-

ments ; a court of justice, as Westminster Hall ; the public room of a corporation ; these halls are built in various styles, and often richly decorated, so as in some towns to serve for assembly and concert rooms.

Heather roof, one that is covered with thatch or heath.

Hospital, a building erected for the reception of the sick, consisting of wards, an infirmary, chapel, dining hall, apartments for the officers of the establishment, and all the necessary offices.

House, an ordinary dwelling ; large and complete country houses consist of the following compartments :

On the ground floor. The hall, vestibule, staircases, dining room, breakfast room, drawing rooms, billiard room, library, study, dressing room, bath, and offices. On the upper floor. Ladies' sitting rooms, or boudoirs, bed chambers, dressing rooms, and nurseries.

Hydraulics, that part of mechanics treating of the motion of fluids, and the machines in which they are concerned.

Hydrostatics, the part which treats of the pressure and equilibrium of fluids.

Impost, a collection of mouldings at the top of a pier surmounted with an arch.

Interfenestrations, (inter fenestras,) the pier or solid between windows in a range.

Jambs, the sides of an aperture.

Jet d'eau, an artificial fountain from which the water is made to spout to a great height from sculptured figures standing in a reservoir.

Jetty, (*jetée*,) a long narrow pier, generally constructed of timbers strongly braced together, projecting into the sea, and forming a convenient landing and harbour.

Jib door, one so constructed as to be entirely in the same face or faces of a wall, thus preserving the dado and surbase on the door, and thereby keeping uniformity in the room.

Key stone, the centre stone of an arch.

Lantern light, a light formed in a flat roof so that the glass may be in vertical planes.

Laundry, the building appropriated to the purposes of washing, consisting of a wash-house with coppers and troughs, a drying and ironing room, and a folding room.

Lazaretto, a public hospital; in foreign countries the house in which quarantine is performed.

Light-house, a tower built on an eminence, of a square, polygonal, or cylindrical figure, generally decreasing in width towards the top, which is crowned with a lantern, where lights are hung for a guide to mariners, sometimes with reflectors exhibiting different coloured lights; under the lightroom is a small apartment for the men on duty.

Lintel, the horizontal beam laid over the head of an aperture

Lobby, (laube,) a small hall or waiting room before a principal apartment in a house.

Luffer boarding, a series of boards placed slanting in an aperture, so as to exclude rain, but to admit air.

Lunette, an aperture in a cylindrical or spherical ceiling, the head of which is also spherical.

Luthern, a window in an attic over the cornice of an order.

Magazine, a building erected to keep ammunition and military stores; those that are to contain gunpowder are surrounded by a moat, and the timber-work of the floors and roofs are fastened with copper nails instead of iron to prevent ignition.

Mansion, the lord's house in a manor: a house calculated to accomodate a complete establishment; smaller houses on the same estate are called lodges, for the reception of parts of the same family; those at the entrance gates of the estate are porter's lodges: mansions are frequently built according to the various styles of Gothic, or in what is termed the castellated style, where towers with battlements are used resembling the ancient fortified castles.

Marquetting, (marqueter,) wood-work inlaid and disposed in any series of regular figures, as

squares, pentagons, hexagons, &c. ; also pieces of stone laid diagonally, or in the same forms.

Masques, pieces of sculpture representing hideous and unnatural forms.

Mausoleum, a magnificent tomb erected to the memory of a deceased person ; ornamental tombs and mausolea are frequently disposed in cemeteries.

Mechanics, that branch of practical mathematics which treats of the laws of motion, the force of moving bodies, and the construction of machines.

Statics, is that particular branch, which has for its object the equilibrium of forces applied to solid bodies.

Dynamics, which relates to the circumstances of the motion of solid bodies.

The mechanical powers are six, the lever, wheel and axle, pulley, inclined plane, wedge, and screw. The principal mechanical engines are, the steam engine ; the pump, of which there are three kinds, the suction pump, where the water in the well is below the barrel ; the lifting and the forcing pump ; the fire engine, which consists of two forcing pumps and an air vessel communicating with the pipes : the various kind of mills.

Medallion, a circular tablet on which figures and ornaments are embossed.

Menage, (*manége*) a building appropriated to

the purposes of horsemanship and teaching the art of riding ; it is commonly of an oblong form, open to the roof, with windows in the side walls, high from the ground ; to it are attached stables, waiting rooms, servants apartments, and harness rooms.

Menagery, (*ménagerie*) a building divided into several compartments and dens, wherein wild animals and curious birds are kept.

Mezzanine, or *Entresol*, a low story introduced between the ground and first floors of a house.

Mill, a mechanical engine to cut or grind ; some are put in action by the wind, called wind-mills, through the medium of sails attached to the external part ; others by water, called water-mills, which are of three kinds ; breast mills, where the water falls at right angles upon float boards placed on the circumference of the water-wheel : undershot mills, where float boards only are used, and where the stream strikes below the centre of the wheel : overshot mills, where buckets only are used, and where the water is poured over the top of the wheel in buckets. An undershot mill requires the greatest quantity of water, and an overshot the least.

Minnarets, or *Alcoranes*, Turkish steeples with a balcony.

Modillions, small brackets under the corona in a cornice, with the front less than the

side: if square or longer in the front than the side, they are then called mutules.

Mosaic work, an imitation of painting formed of small stones or marbles arranged in various figures and of different colours in pavements: also pieces of stained glass or precious stones laid in a similar manner.

Mosque, a Turkish or Mahometan temple, which is adorned with minnarets: on the evening of the sabbath, these and the front arches are illuminated, and in the forenoon the criers from the balconies summon to prayers.

Museum, a building originally dedicated to the Muses, now applied to the reception and preservation of antiquities and curiosities of various kinds; rooms for scientific and literary purposes, and galleries of painting and sculpture are frequently attached.

Niche, a hollow or cavity in the thickness of a wall, to hold statues, vases, or candelabra; it may be of any figure on the plan, with a square or spherical head.

Obelisk, a quadrangular pyramid of a great height in comparison to its diameter at the base.

Observatory, a high building erected and fitted up for the purposes of astronomical observation.

Offices, those apartments in a dwelling house appropriated to the servants, consisting of the kitchen, scullery, dry and wet larders, pantry,

silver scullery, pastry, servants hall, cellars for wine and liquor, coals, wood, &c., house-keeper's room, still room, confectionary, store room, china closet, plate closet, ewry, porter's rooms and sleeping rooms.

The out buildings, consisting of stables and coach houses, with apartments for the coachmen, grooms, and attendants, harness rooms, laundry, dairy, bake-house, brew-house, &c.

Pagoda, an Indian temple, or Chinese building, erected in the form of a polygonal tower, many stories in height, with a sloping roof between each, the different angles of which are adorned with painted dragons and little bells, the whole of the wood-work is painted with various gay colours, and the railings and balconies formed in frets of several devices.

Pallier, the landing place on a staircase.

Parapet, a low wall breast high raised on the sides of bridges, or at the top of high buildings to prevent accidents.

Parquetry, (*parqueterie*), an inlaid floor, consisting of small pieces of wood disposed in various regular figures.

Pavilion, (*papilio*), a building divided into several distinct portions, each contained under a separate roof, resembling a tent in its form, being generally conical: the ornamental summer houses in gardens having the roof divided into two stages, each with eaves.

Pendentive, or spheric spandrel, a spherical triangle bounded by the intersections of three small circles of the sphere : often employed to form the ceilings of triangular, rectangular, or polygonal apartments, hanging from a horizontal circle in the centre of the ceiling, called the terminator, and ending in two vertical arcs, called springers, at the internal angles of the two adjacent walls. From the terminator usually rises a dome or cylindrical wall, with apertures for the admission of light.

Penthouse, a small building attached to a larger one, and having its roof sloping in one direction from the main wall.

Perron, the flight of steps leading to the principal entrance of a building.

Perspective, the art of drawing on a plane the true resemblance of objects as they appear to the eye when viewed from any distance or situation.

Pew, the enclosed seat in a church.

Piazza, a covered walk enclosed by a range of arches.

Pied-ouche, a small base ornamented with mouldings, and placed under busts.

Piedroit, a species of pilaster without any regular base or capital,

Pier, (*pierre*), a mass of stone-work projecting against the force of the sea or a river for the security of vessels in harbour : also the solid

part between the arches of a bridge, and between any openings in a wall.

Pillar, a cylindrical, insulated column, deviating from the just proportions of a regularly formed one.

Piscina, a large stone basin or reservoir placed in the centre of the court of a Turkish mosque; of an oblong form, and furnished with cocks, for the ablution of the Musselmans before prayers.

Pisé, a species of wall constructed of earth or clay unburnt, particularly adapted to rustic purposes.

Pneumatics, that part of mechanics treating of the nature, weight, pressure, and spring of the air, and the effects arising therefrom.

Ponton, a floating bridge formed of two or more boats fastened together and planked over, used generally by an army, for the conveyance of cannon across a river.

Porphyry, a marble of a dark red colour.

Portail, the front of a church in which is the great entrance door: also the great door or gate of a palace or castle.

Portal, (*portella*), the smaller of two gates, when any two are close together of different sizes.

Postern, a little door or gate at the back of any building.

Prison, (*prendre*), an edifice constructed with

cells for the confinement of criminals or debtors until they are condemned or discharged : a penitentiary is where persons are doomed to confinement or hard labour for slighter offences, and where means are used to reclaim them : these buildings contain a chapel, airing grounds or yards, and apartments for the officers of the establishment, with a general working room for the prisoners.

Projection, the representation of objects on a plane according to the rules of geometry : Ichnography, (*ιχνος γραφω*) the geometrical plan or horizontal section of an object : orthography, (*ορθος γραφω*), the external vertical projection or elevation, and the internal or section : scenography, (*σκηνη γραφω*) the delineation of objects according to the rules of perspective : sciography, (*σκια γραφω*), the representation of shadows according to geometrical principles.

Pyramid, a solid raised on a polygonal base and terminating in a point or apex.

Quadrangle, a court of a quadrangular figure, having four sides and four angles.

Quarry, a stone pit, or the place whence lime and slate are dug : also a pane of glass, (*carré*) cut in a diamond form.

Quay, an artificial bank of masonry constructed by the side of a river, for the more convenient landing of goods.

Relievo, or **Relief,** embossed work, where sculptured figures or ornaments are raised from the face of the plane on which they are formed; **alto rilievo,** when the figures are nearly detached from the solid face; **mezzó rilievo,** when they are half raised; **basso rilievo,** when only slightly raised.

Reservoir, a large pond of water artificially collected.

Revels, or **Reveals,** the two vertical sides of apertures between the front of a wall and a door or window frame; the lower or horizontal plane of an aperture under a window is filled with a sill, usually of stone, projecting beyond the face of the wall, bevelled on the upper surface, and throated underneath to throw off the water.

Rosso antico, an ancient marble of a red colour.

Rostrum, the part in a public hall or large room, which is raised and mounted by steps, for declamation.

Rotunda, a term used to express any building that is circular both internally and externally.

Rustics, courses of stone on the face of a building, channelled between every two adjacent courses; they are of various kinds, as, flat joint or French rustics, where the channelures run most generally in horizontal lines only, and are sunk out square; birds-

mouthed, or splayed rustics, which run in horizontal and vertical courses, formed of two inclined and equal planes, shewing a re-entering angle: frosted and vermicular rustics.

Saloon, (salon), a spacious waiting room leading to state apartments; it is frequently vaulted, often comprising two stories with two heights of windows.

Scagliola, an imitation of the most beautiful marbles, as sienna, brocatello, and porphyry; it is made of a kind of paste, and used for ornamental columns and pedestals.

Scheme or Skene Arches, those whose curve is a segment less than a semicircle.

Screen, a range of columns or arches, or merely a high wall, forming the enclosure to the courtyard in front of any magnificent residence.

Shaft, the part of a chimney above the roof; the vertical funnel at the entrance of a mine, from the sides of which branch the different stages of the mine in horizontal directions.

Site, the situation of a building with regard to the points of the compass, or the plot of ground which is occupied by such building.

Skylight, a frame of glass whose surface is such, that a vertical line may be suspended from any point on it, without intersecting it in another point: skylights are commonly in the same inclined surfaces as the sloping sides of the roof; they are also pyramidal, conical, spherical, and ellipsoidal; in these last cases their axes are vertical.

Sluice, a frame-work of wood placed across a river to stop the progress of the water.

Soffit, the under side of any projecting member, or head of an aperture.

Span of an arch, the distance between the piers from which the arch springs; the **Pitch** is the height from the springing to the crown.

Stack of Chimneys, a shaft containing a series of flues, which are the funnels or vents through which the smoke is conducted; the solid parts separating the flues are called **withs**.

Staircase, the space in any building which is occupied by the whole set of stairs, leading from the one story to the other. A flight of stairs is a continued uninterrupted number of steps; according to the form of the staircase, flights may be either in one straight line, in a serpentine, a spiral, or in progressive and retrograde stages; the landings between these stages, are called either quarter or half spaces, according as the person ascending or descending must describe a quadrant or a semicircle in passing the landing. Stairs may be variously constructed, as geometrical stairs, those which are supported by one end of the steps being fixed into the wall, and every step receiving an additional aid from the one immediately below it; bracket stairs, those which are raised upon carriages, and held up also by the landings; dog-legged stairs, those which have the adjacent string-board of the returning flight or set of steps

fixed in the same vertical plane, to an upright post or newel against which the narrow ends of the winders, when used, also terminate; flyers, are those steps which have all their treads parallel; winders, are those which radiate, so that they become considerably broader at one end than the other; the newel is the upright solid pillar around which spiral stairs are often turned; the well-hole is the space left between the flights in the centre of the staircase; the upright bars which rise from the ends of the steps are called balustres, and are secured on the top by a handrail; the lower step wrought with a scroll at the one or both ends, is called the curtail step, and the upright bar rising from the scroll is the newel bar.

Starlings, wooden piles and framing formed round the piers of bridges, to protect them from the sudden percussions of floating blocks of ice, and other moving bodies.

Statue, (statua), a piece of sculpture in full relievo, and insulated. Statues receive various appellations according to the design for which they are erected, as triumphal, fountain statues, &c.

Grecian statues, the figures of the ancient deities, heroes, and athletæ which were represented entirely void of drapery, or with the chlamys.

Roman statues, such as were represented in

armour or clothing ; those of the emperors, *statuæ paludatæ*, with long gowns over their armour ; those of captains, *thoracatæ*, with coats of arms ; those of soldiers, *loricatæ*, with cuirasses ; those of senators and augers, *trabeatæ*, with the *trabea* ; those of magistrates, *togatæ*, with long robes ; those of the people, *tunicatæ*, with a plain *tunica*.

Statua iconica, is one which resembles the person it is intended to represent ;

A *curule* statue, one that is represented in a chariot drawn by *bigæ* or *quadrigæ* ;

A *bust*, a figure represented only as low as the breast.

Still-room, that which is attached to the house-keeper's room in large houses, where tea, coffee, and other refreshments are made and set out, and taken from thence to the state apartments for the company.

Stilts, a set of piles driven into the bed of a river, a small distance from each other, surrounded by another set driven closely together, all the interstices are filled up with stones, the whole forming the foundation for a pier.

Surbase, the horizontal mouldings round the sides of a room immediately above the *dado* ; the plain or moulded plinth under the *dado* is termed the *skirting*, and the horizontal mouldings immediately under the ceiling are called the *cornice*.

Tambour, the wall of a circular building, surrounded with columns, and surmounted with a dome.

Terrace, (*terra*), an area raised round a building, for the purposes of exercise, and generally enclosed by a balustrade.

Tesselated Pavement, a rich pavement of mosaic work, formed of small pieces of marble or tile, called *tessellæ* or *tesseræ*.

Theatre, (*θεομαί*) a building appropriated to histrionic performances; it consists of the stage, where the piece is represented; the green room, where the performers assemble; dressing rooms; scene, and machinery rooms; and the orchestra in front of the stage, for the musicians; the part for the audience is usually of a semi-circular or semi-elliptical form; the lower area, furnished with open seats, is called the pit; around its circumference, in several heights, are ranges or tiers of compartments called boxes; the rows of open seats above these are in two separate stages, called the upper and lower galleries. To a theatre may be attached a concert-room, at one extremity of which is a raised floor, forming the orchestra, the audience being accommodated with open seats in the remaining part of the area, and galleries round the sides. To a concert room should be subjoined a separate anti-room, staircase, and

entrance for the performers ; and for the company, refreshment and waiting rooms, with appropriate staircases, lobbies, and entrances. The word theatre is also applied to any public room furnished with seats rising one above the other in regular gradations.

Torso, a bust or trunk of a sculptured figure without the head and limbs.

Trophy, an ornamental pillar, resembling the trunk of a tree, and adorned with military arms and weapons.

Vase, a hollow vessel, used for decoration. In ancient times, vases were appropriated to hold the lustral water used in the purifications of the ancients ; the blood of a victim to be sacrificed ; or the consecrated wine which bedewed his head. These were termed votive vases, and were adorned with subjects relating to the religious ceremonies of the deity in whose worship they were to be employed. Vases were also placed in sepulchres, hence called sepulchral or funereal, the designs on which were adapted to the ceremonies of the tomb. The remaining purposes to which vases were applied, were in the baths, in halls, gardens, &c.; embellished with garlands, or allegorical subjects, and differing in form, and particularly in the position and shape of the handle. The most antique vases were made of clay ; the figures

on them were generally red, on a dark ground.

Venetian window, one that is divided into three or more compartments in the width by broad pilasters.

Verandah, a covered balcony ; it is taken from an Indian word signifying a covering in the form of a sloping roof, which projects beyond the main wall of the building ; it is supported by slender pillars, and thereby constitutes an external room or passage.

Verd antique, a marble of a green colour, and veined.

Vestibule, (*vestibulum*), a large hall usually of a circular figure, lighted from the top, and having frequently a gallery round it on the upper floor with wide apertures to admit light into the gallery, and to enable persons from it to look into the vestibule.

Villa, a country seat commodiously situated for a summer or winter residence, and consequently containing apartments suited to each season.

Voussoirs, the assemblage of arch stones forming the contours of arches, constructed according to any description of curve.

Voussure, the curved line of a segmental arch ; also that of segment headed or dioclesian windows.

Urn, a vase of a curved form, made of various

materials, and used for decoration. It was the custom of the ancients to deposit the ashes and bones of their dead in urns placed in niches made in the walls of the sepulchral chambers. Those urns containing the ashes were called cinerary, those the bones, ossuaries. The urn was considered by the ancients as the attribute of their river deities, and used in allegorical statues of rivers, which were represented by human figures, as Tiberinus, who appears reclined and leaning on his urn.

Waggon-headed, a term applied to ceilings of a semi-cylindrical or semi-elliptical form.

Walls, the external sides of a building, and the internal vertical divisions between the different apartments composed of brick or stone; when the latter are formed of wood and plaster they are termed quarter-partitions, and the former weather-boarded, or close-boarded framing

Water-table, a plinth of stone or brick round the lower part of external walls, above the level of the ground, bevelled on the upper surface, and from thence the wall begins to be diminished in thickness: the other horizontal projections in the height are called plain or moulded stringings.

Wicket, the small portion in a large coach gate, which can be opened for the admission

of persons on foot, to avoid unbarring the great gate.

Windlass, a machine for raising weights in which a chain or rope is wound about a cylinder moved by several levers: it is also a handle by which any body may be turned.

Window, the glazed frame-work in the aperture of a wall, to exclude air and admit light into an apartment; it consists of a sash-frame and sashes, which last are said to be single or double hung, according as one or both are made to draw up or down; the space into which the shutters at the sides are folded, is the boxing; the pannelling under the window and shutters is the back and elbows: sashes which are hung to the frame by means of hinges, and which form two parts meeting in the centre when closed, are called casements; these, when used in the best rooms and more ornamentally framed, with large panes of glass, are denominated French casements.

Wreath, a bunch of ornamental foliage put together in the form of a garland or festoon, thickest in the middle and suspended by the two extremities, whence it hangs in a graceful curve.

Zotheca, a small room or recess which can be added to or separated from a larger room by means of sliding windows of light frame-work or by curtains.

SUPPLEMENT to the vocabulary of terms relating to the public and private buildings, sacred rites and ceremonies of the ancients, described in Section 3.

Ærarium, the Roman treasury.

Altare, the altar dedicated to the cœlestial deities, usually made of marble or stone, sometimes of bronze ; of various shapes ; square, circular, or triangular ; the figure or distinguishing symbol of the particular deity to whom it was consecrated, was represented on it in relievo ; **ara**, was the altar dedicated to the gods of the earth and sea ; it was also a sanctuary or place of refuge.

Catacombs, (*κατα κομβος*), subterraneous cavities for the burial of the dead ; they were very numerous near Rome, and are supposed to have been the resort of the primitive Christians, and the vaults wherein the martyrs were interred.

Choragium, the part in the ancient theatres where the properties were kept.

Hermes, a bust of Mercury without arms, standing upon a high sheath as a terminus, and placed in the public ways.

Hyperthyron, (*υπερ θυρον*), the architrave and dressings over doors and windows.

Templa, buildings set apart for public worship, and consecrated ; ædes, those which were not dedicated to any particular deity ; ædícula, smaller temples of the latter description ; sacella, those uncovered, or with a small opening at the top ; fana, delubra, those destined to the mysteries of the ancients.

FORTIFICATION. SECTION, IV.

Agger, in the ancient military art, a rampart or bank of earth, boughs of trees, &c., of the same nature as what are now called lines.

Bacule, a kind of portcullis made like a pit-fall, with a counterpoise, usually constructed before the corps de garde.

Battery, the frame or raised work upon which the cannons are mounted in fortification.

Cap, the highest part of the glacis.

Chamber of a mine, a small square enclosure at the extremity of the gallery of a mine, to contain a quantity of powder, in order to spring the mine.

Chandelier. a kind of moveable parapet, made of two upright stakes, with boards to support fascines, in order to cover and protect the pioneers when working in approaches and galleries.

Circumvallation, a line formed by a ditch and parapet of earth round a camp before a besieged place ; it is always constructed beyond the reach of the cannon of the place.

Epaument, any work constructed of fascines and earth for a shelter against cannon.

Fall-gatters, large pieces of wood suspended

by cords above the gate of a fortified town, and let fall at once to stop the entrance.

Fore-ditch, that which is immediately at the foot of the glacis, and always filled with water.

Palaska, a kind of intrenchment of stakes covered with earth, used by the Turks to fortify a post.

Park, the space of ground in a camp, surrounded with lines, for placing the pieces of artillery, powder magazines, and other ordnance necessary for a siege.

Saucisson, a mass of large branches of trees bound together ; the same as fascines, only, the latter is composed of smaller boughs and twigs.

GOTHIC TERMS. SECTION V.

Ambry, in ancient abbeys and priories, that part where the church plate was deposited, and utensils for house-keeping kept.

Muzzle, the appellation given to the elbows of the stalls, in the choirs of churches, when they are carved with the snouts or muzzles of animals.

Vice, a spiral geometrical staircase conducting to the tower or steeple in a church, or to the upper stories of an ancient castellated mansion.

MODERN TERMS. SECTION VI.

Adit, in a general sense, is the passage to, or entrance of any thing; as the adit of a mine, of a theatre, &c.

Aduar, among the Arabians, an ambulatory village, formed of tents, which are constantly moved from place to place.

Baldachin, a canopy supported by slender pillars, used as an ornamental covering to an altar, or a throne.

Buffet, a small cupboard, formerly placed in a dining room, where the table service was kept; a term now used for the refreshment rooms at public places.

Cantoned, a term applied to the exterior of a building when its corners are decorated with pilasters, angular columns, or rustic quoins.

Cemetery, (κοιμητηριον), a burial ground, in which are erected ornamental tombs to the memory of the deceased.

Gradus, the courses of stone rising like steps above the cornice of the tambour of a dome or cupola, whence it springs externally.

Hermitage, the small retired habitation of a

hermit, with an oratory attached to it ; also a pavilion surrounded by a garden laid out with parterres of flowers, cascades and jets d'eaux, and situated in a retired spot.

Ice-house, a building for the preservation of ice during the summer ; it is usually constructed in the form of two cones united at their bases, the lowest is of stone or brick in which the ice is put and the upper surface rather below the level of the ground ; the uppermost may be of stone, brick, or wood, and thatched, with its entrance to the north, at the extremity of an enclosed porch ; it should be situated in a wood or grove of trees.

Lantern, the ornamental cylindrical wall crowning a dome or cupola ; also a clock tower.

Metache, (*μετοχή*) the space between each of the dentils in the cornice of an order.

Proscenium, that part of the stage in a theatre which is before the drop curtain, the decoration around which always remains fixed, and is usually very ornamental ; this part also receives the appellation of proscenium.

Repertory, the room attached to an anatomical theatre, fitted up with cases and shelves to contain and to place in proper arrangement such preparations as are necessary for the demonstrations of anatomy.

Scabellum, a high slender pedestal in the form of a sheath, column, or balustre, insulated, and

supporting a statue, ornamental vase, or clock, placed in magnificent halls, corridors, and on the landings of grand staircases.

Shingles, thin pieces of wood used for a covering, cut in the form of tiles, each course lapping over the one immediately below it; shingles are now rarely to be found in England; but several stone spires cut in imitation of them may be seen in France.

Spere, the railing placed across the lower end of ancient dining halls, the space enclosed by it to shelter the entrance being called the screen.

Tunnel, a subterraneous vault or arch-way extending in a horizontal direction, with a sloping descent at each extremity, from the surface of the ground, to the level of the road-way in the tunnel. The communication formed between the two palaces on the eastern and western banks of the river Euphrates, at Babylon, by Semiramis, was the only instance of a tunnel of a similar description; one is now being constructed under the Thames at London, of large dimensions; and intended as a communication to the opposite shores for carriages and foot passengers.

Vaulting and groining; a simple vault is an arched roof, formed internally by a portion of the surfaces of a sphere, cylinder or cylindroid, and is never greater than half the surface of the solid:

A groin is the concavity formed by one

simple vault piercing another ; the most usual species of groin, is that formed by the intersection of two cylinders, or a cylinder and cylindroid : groins are differently named, according to the surfaces of the geometrical solids, which compose the simple vaults :

A cylindric groin, is one formed by the intersection of two portions of the surfaces of a cylinder :

A spheric groin, one formed by the intersection of two portions of the surfaces of a sphere :

A conic groin, one formed by the intersection of two portions of the surfaces of a cone : groins when formed by the intersection of two vaults of unequal heights are expressed by a compound word, the former part denoting the highest vault, the latter the lowest :

A cylindro-cylindric groin, one formed by the intersection of two unequal cylindric vaults :

A sphero-cylindric groin, one formed by a sphere and a cylinder, the spheric portion having the greatest height :

A cylindro-spheric groin, one formed of a cylinder and a sphere, the cylindric portion having the greatest height :

A cono-conic groin, one formed by the intersection of two conic vaults of different heights :

A multangular groin is formed by the inter-

section of three or more simple vaults of the same height.

Well, a circular vertical shaft sunk to a spring of water, which is brought to its mouth in buckets, lowered and raised by means of a windlass. The sides are cased with stone or brick ; this is called steening, and is a security against the compression or falling in of the surrounding earth.

FINIS.

INDEX.

	PAGE		PAGE
Abacus.....	32	Arch-buttress.....	62
Abatjour.....	68	Archeion.....	39
Abatvoix.....	69	Architraves.....	31, 70
Abbeys.....	57	Archivum.....	40
Abreuvoirs or Abreuvoirs..	69	Archivolt.....	70
Abutments.....	ib.	Area.....	75
Acerra.....	42	Arena.....	23
Acroteria.....	39	Armamentary.....	70
Adit.....	107	Arris.....	ib.
Aditus.....	41	Arrow.....	47
Aduar.....	107	Arsenal.....	ib.
Adytum.....	39	Atlantides.....	36
Ædicula.....	40	Attaby.....	77
Ægicranes.....	42	Attic.....	70
Ærarium.....	102	Avenue.....	ib.
Agger.....	104	Aviary.....	ib.
Agora.....	14, 15	Aulicorum ædes.....	40
Agvei.....	43		
Aisles.....	59	Bacule.....	104
Alcoranes.....	86	Balcony.....	71
Alcove.....	69	Baldachin.....	107
Aleatorium.....	39	Ballium.....	45
Almehrab.....	69	Ballon.....	71
Almonry.....	57	Balustrade.....	ib.
Altar.....	43	Balustres.....	71, 108
Altare.....	102	Band.....	36
Ara.....	ib.	Banquets.....	71
Ambones.....	59	Baptistery.....	59
Ambry.....	106	Barbacan.....	71
Amkas.....	69	Barbican.....	44
Amphora.....	43	Barracks.....	71
Ancones.....	69	Basilica.....	15, 21, 40
Andronicus Cyrrhestes,		Basilica of Antoninus.....	22
tower of.....	14	Base.....	31, 76
Antæ.....	36	Base-court.....	62
Antefixa.....	39	Basement.....	71
Apotheca.....	ib.	Batardeau.....	73
Appareille.....	47	Battery.....	104
Aquaminarium.....	43	Battlement.....	62
Aqueducts.....	69	Bay.....	71
Roman.....	26	Belfry.....	63
Arabesque.....	52, 69	Belvidere.....	71
Arabian.....	52	Bench table.....	62
Arcade.....	69	Berne.....	47
Arch.....	61, 69	Bilection mouldings.....	72
Crown.....	ib.	Bilets, or billeted mould-	
Extradors.....	ib.	ings.....	62
Intradors.....	ib.	Blocking course.....	72

	PAGE		PAGE
Boltel	62	Cavædium	40
Bonnet	47	Ceiling	73
Bossage	72	Cella	40
Bossage, the faces of those stones in a building which are left rough when set, and intended to be afterwards sculptured.		Liberti	ib.
Bosses	62	Signariæ	ib.
Brackets	66	Servorum	ib.
Branche	47	Cells	57
Branches	62	Cemetery	107
Brasses	59	Centre	73
Bray	47	Cenotaph	43
Bridges	72	Chamber of a mine	104
Roman	26, 29	Chancel	60
Suspension	72	Chandelier	104
Bronze	38, 72	Chantry	57
Buffet	107	Chapter	63
Bull's eye	72	Chapter houses	57, 60
Butments	69	Chevaux de frise	49
Buttresses	63	Cheveron	67
		Chevet	63
Cabling	35	Chimney-piece	73
Cage, any outer work enclosing others; thus the cage of a staircase is the wall or walls which surround it.		Chlamys	43, 95
Caisson	72	Choir	59
Cambers	ib.	Choragium	102
Campanile	63	Cinerarium	43
Canarah, excavations at ..	51	Cippus	ib.
Candelabrum	43	Circumvallation	104
Canephoræ	ib.	Circus of Antoninus	24
Canopy	63	Aurelianus	ib.
Cantilevers	75	Flaminius	ib.
Cantoned	107	Circus Maximus	23
Cap	104	Clere-story	60
Capital	31	Cloaca Maxima	26
Capitol	21	Cloisters	57, 60
Caracol	72	Clock Tower	108
Carol	59	Closet	63
Cartouches	73	Coenacula	4
Caryatides	30	Coenatio	40
Cascans	47	Coffer dam	73
Casemate	ib.	Coffers	41, 73
Casement	63	Coin	73
Caserns	71	Coliseum	22
Casine	73	Colleges	57
Castles	44	Collegiate Churches	ib.
Catacombs	18, 102	Colonnade	74
Cathedral churches	57	Columbaria	46
Cavalier	48	Column	31, 74
		Columna Milliaris	31
		Comitium	ib.
		Commanderies	57
		Compluvium	40
		Concert Room	97
		Conservatory	74
		Consistories	75

	PAGE		PAGE
Console	75	Attaby	77
Convents	57	Kiosk	ib.
Conventual Cathedrals....	58	Dioclesian, palace of.....	30
Coping	75	Dionysius, ear of	18
Corbeilles	ib.	Dripstone	63
Corbel	63	Dock	77
Corbie steps	ib.	Apron	ib.
Cordon	48	Flood Gates	ib.
Cornice	31	Dome	ib.
Corona	32	Door	ib.
Corridor	75	Dormer Window	78
Cottage	ib.	Dorter	58
Cottage of Romulus and		Drawbridge.....	44, 78
Remus	21	Swing	ib.
Coupole or Cupola, the concave		Dressings	ib.
surface of a dome: it is fre-		Dripstone	63
quently ornamented with		Dungeon	45
painting or sculpture in com-		Dyke	78
partments.		Dynamics	86
Court	75		
Cousinet	ib.	Eaves	78
Cove	ib.	Echea	43
Covert-way	48	Ecphora	36
Cremaille	ib.	Elephanta, excavation at..	5
Crenelle.....	45, 62	Ellora, excavation at.....	ib.
Crescent	76	Embrasures	62
Crest tiles	63	Emplecton	39
Croquets	ib.	Encarpus	40
Cross, Greek	59	Entablature	31
Cross, Latin	ib.	Entail	64
Crown works	48	Fret Work	ib.
Crypt	40, 61	Entasis	35
Crypto porticus	40	Swelling	ib.
Culvert	76	Entresol	86
Cupoia	42, 76	Epaulment	104
Curia	21	Epistylum	31
Cusps	67	Ergastulum.....	40
Cuvette	48	Esplanade	48
Cyziceni	4	Estrade.....	69, 78
		EWRY.....	78, 88
Dado	76	Excubitoria, apartments for	
Die	31	those persons who watch-	
Dairy	76	ed during the night in	
Dam	ib.	the monasteries	
Deanery	58	Exedrae	40
Demosthenes, lantern of ..	13	Extrados of a bridge	79
Dern	64	Eye of a dome.....	ib.
Diaconicon	58		
Sacristy	ib.	Façade	ib.
Diæta	40	Facing	48
Diets	ib.	Fall Gatters	104
Diaper	64	Fan Light, an ornamental	
Divan	76	glass light over a door or	

	PAGE		PAGE
other opening, with radiating bars in resemblance of a fan		Pure Gothic and Decorated English	53, 56
Fascia	36	Saxon	53
Fascinés	47, 78	Semi or Mixed Norman	54
Featherings	67	Gradatory	64
Feretories	60	Gradus	107
Finials	64	Grecian Orders	
Flank	79	Corinthian	34
Fleche	48	Doric	32
Floor	ib.	Ionic	34
Foils	67	Groin	64, 109
Font	60	Grotto	81
Fore ditch	105	Guard-house	ib.
Fort	48	Guerite	49
Royal fort	ib.	Guillockhi	81
Star fort	ib.	Gymnasia	15
Fortifications	46	Academia	ib.
Forum of Augustus	21	Cynosarges	ib.
Nerva	ib.	Lyceum	ib.
Trajan	21	Gynæceum	40
Forum, Grecian	14	Hadrian, Aqueduct of	13
Roman	21	Arch of	14
Comitium	ib.	Villa of	28
Curia	ib.	Hall	81
Senate House	ib.	Hatched Mouldings	64
Fret	79	Heather Roof	82
Fret Work	64	Hermes	102
Friaries	58	Hermitage	107
Frieze	31	Herisson	49
		Herse	45
Gabionnade	48	Hood Mouldings	65
Gable	64	Horn Works	49
Galilee	58	Hospital	82
Gallery	48, 79	House	ib.
Games	10	of the Greeks	16
Gargle	64	of the Romans	27
Garret	79	Hydraulics	82
Gazons	48	Hydrostatics	ib.
Geometry	80	Hyperthyron	102
Stereotomy	81	Hypocaustum	41
Trigonometry	ib.	Hypogeum	ib.
Gestatio	28		
Giallo Antico	81	Ice house	108
Glacis	49	Ichonography	91
Gothic	52	Impost	82
Anglo Norman	54	Incantada, the	17
Early Gothic	53	Infirmary, the apartment for the sick in ancient monasteries; to it a chapel, refectory, garden, and a covered gallery or cloister were attached: an oriel was a smaller apartment	
Florid Gothic	54, 56		
Lancet Arch	55		
Norman	53		
Ornamented and Perpendicular English	56		

	PAGE		PAGE
for those persons who were exempted from their monastic duties by any slight indisposition.		Magazine	84
Intercolumniations	37	Mansion	ib.
Interfenestrations	82	Castellated	ib.
Isodomon	39	Lodges	ib.
Jambs	83	Porter's lodges	ib.
Jet d'eau	ib.	Marbles	38
Jetty	ib.	Marquetting	84
Jib door	ib.	Masques	85
Julliet	46	Mauresque	52
Keep	45	Mausoleum	4, 85
Key	65	Mechanics	ib.
Key Stone	83	Dynamics	ib.
Kiosk	77	Mechanical engines	ib.
		Mechanical powers	ib.
Label mouldings	65	Statics	ib.
Labyrinth	6	Medallion	ib.
Lacunar	41	Menage	ib.
Lacunaria	ib.	Menagery	86
Lady chapel	58, 59	Merlons	45, 62
Lantern	65, 108	Mesaulæ	17
Lantern light	83	Metoché	108
Lararium	43	Mezzanine	86
Lares	ib.	Mill	ib.
Penates	44	Water mills	ib.
Larmier	32	Wind mills	ib.
Laundry	83	Milliaria	27
Lautumiae	18	Minarets	86
Lavatory	60	Moat	44
Lazaretto	83	Modillions	86
Lectern	60	Mutules	87
Light house	83	Mœris, lake of	6
Lintel	84	Moineau	49
Lobby	ib.	Monasteries	58
Locutory, or parlour, the room for conversation in a monastery; there was one for the monks, and another for visitors.		Monument	60
Loop holes	45, 62	of Lysicrates	13
Luffer boarding	84	of Mausolus	4
Lunettes	49	of Philopappus	14
Lunettes, apertures in a cylindrical or spherical ceiling, with their heads cylindrical or spherical.	84	of Thrasyllus	13
Luthern	ib.	Moorish	52
Machicolations	45	Moresque	69
		Mosaic Work	87
		Mosque	ib.
		Mouldings	31
		Mullions	65
		Mummy pits	6
		Muniment house	58
		Munnions	65
		Museum	87
		Mutules	ib.
		Muzzle	106
		Naos	42
		Naumachia Domitiani	24

	PAGE		PAGE
Nave.....	60	Peridromos, the space between	
Nebule.....	65	the columns and the wall in	
Nerves.....	ib.	peripteral temple.	
Niche.....	87	Peribolus.....	41
Nunneries.....	58	Peristyle.....	ib.
		Peristylum.....	ib.
Obelisks.....	7, 87	Perron.....	89
Observatory.....	ib.	Persians.....	36
Odeum.....	41	Perspective.....	89
Odeum of Regilla.....	16	Pew.....	ib.
Oculus.....	41	Pharos, tower of.....	7
Offices.....	87	Piazza.....	89
Ogive.....	65	Pied-ouche.....	ib.
Key.....	ib.	Piedroit.....	ib.
Oillets.....	45, 62	Piers.....	66, 89
Olympic games.....	10	Pilaster.....	36
Opisthodomus.....	13, 41	Pillar.....	90
Opus reticulatum.....	39	Pinnacle.....	66
Oratories.....	58	Piscina.....	90
Orbs.....	65	Pisé.....	ib.
Orders of ancient temples	36, 37	Plinth.....	92
Orders of architecture	31 to 35	Plyers.....	45
Orillon.....	49	Pneumatics.....	90
Orthography.....	91	Podium.....	42
Osymandias, palace of.....	6	Poikile.....	14
Outworks.....	46, 49	Pompey, pillar of.....	7
Cheval de frise.....	ib.	Ponton.....	90
Herisson.....	ib.	Porphyry.....	ib.
Turnpike.....	ib.	Portail.....	ib.
		Portal.....	ib.
Pagodas.....	5, 88	Portcullis.....	45, 104
Palæstra, Greek.....	11	Porticus.....	42
Palæstra, Roman.....	24	Postern.....	90
Palaska.....	105	Posticus.....	42
Palisades.....	49	Preceptories.....	56
Tambour.....	ib.	Prefericulum.....	44
Pallier.....	88	Priories.....	56
Pannel.....	65	Prison.....	15, 90
Parapet.....	47, 65, 88	Penitentiary.....	91
Park.....	105	Procætones.....	42
Parquetry.....	88	Projection.....	91
Pastophoria.....	41	Ichnography.....	ib.
Pate.....	50	Orthography.....	ib.
Patera.....	44	Scenography.....	ib.
Pavilion.....	88	Sciography.....	ib.
Pedestal.....	31, 41	Pronaos.....	42
Pediment.....	41	Naos.....	ib.
Tympanum.....	ib.	Proscenium.....	108
Pendentive.....	89	Prothyrum.....	58
Springers.....	ib.	Pseudisodomon.....	39
Terminator.....	ib.	Pteromata.....	42
Penthouse.....	89	Ptolemies, library of the..	7
Perches.....	66	Pulvinaria.....	44

INDEX.

119

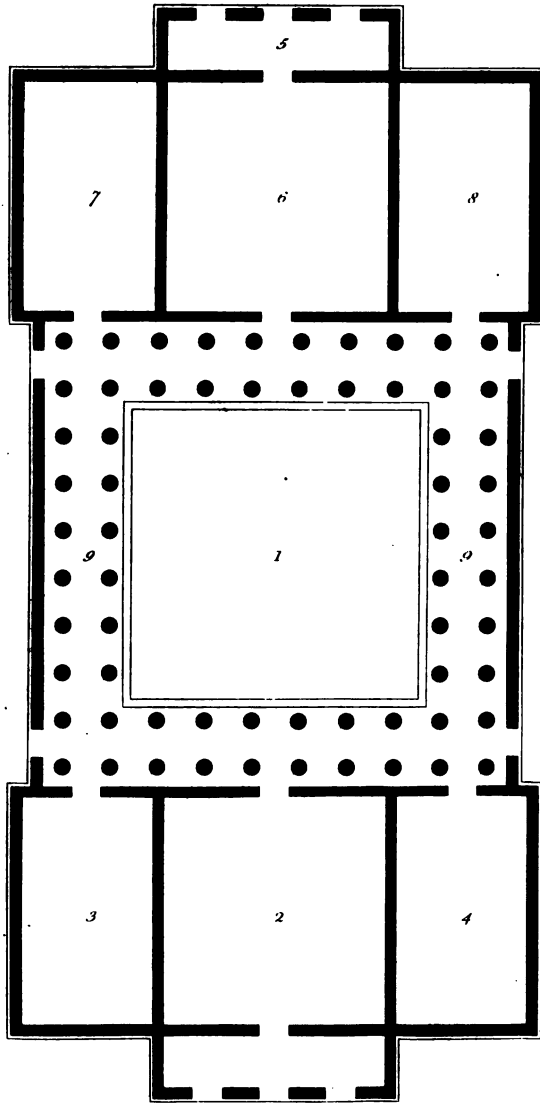
	PAGE		PAGE
Pulvinated	36	Sacellum	42, 103
Pyramids	5, 91	Sacrarium, among the Ro-	
		mans a private chapel,	
		consecrated to some par-	
		ticular divinity.	
Quadrangle.....	91	Sacristy	58
Quarry.....	ib.	Saigner	50
Quay	ib.	Salient angle	ib.
Quoin	73	Saloon	93
		Salsette, excavations at ...	5
Ramps	50	Sap	50
Ravelins	ib.	Saracenic	52
Redoubt.....	ib.	Sarcophagus	44
Re-entering angle.....	ib.	Saucisson	105
Refectories	58	Scabellum	108
Relievo	92	Scagliola.....	93
Alto	ib.	Scarp	50
Basso	ib.	Scenography	91
Mezzo	ib.	Scheme arches	93
Repertory	108	Sciography	91
Reredos	60	Sconce.....	50
Reservoir	92	Screen	60, 93
Responder	66	Scriptorium, or domus anti-	
Reveals	92	quarium, the room in a	
Sill	ib.	monastery where the an-	
Revetement	47	tiquarii made copies of	
Roman orders		old works, either for the	
Doric	33	use of the monastery, or	
Composite	35	for their own emolument.	
Corinthian	34	Scutcheon	60
Ionic	ib.	Senate house	15, 21
Tuscan	32	Sentinel house	44
Rood loft.....	60	Shaft.....	31, 93
Rood tower.....	66	Shingles	100
Roof, the covering of tile,		Shrine	60
slate, or other materials		Sill	66
on buildings; a roof slop-		Sillon	50
ing only on one side is a		Simpulum	44
pent, or shed roof; a gable		Site	93
roof, one that slopes on		Skirting	96
the two opposite sides;		Sky-light.....	93
a truncated roof, one that		Sluice	94
is flat on the top; a curb		Soffit	ib.
or mansard roof, a gable		Span, of an arch, Pitch ...	ib.
roof in two sloping planes		Spandrel	66
on each side, forming sa-		Specularia, the casements	
lient angles at the inter-		of transparent stone, spe-	
sections of these planes;		cularis lapis, used by the	
a hipped roof, one that		Romans before the intro-	
slopes on all sides.		duction of glass.	
Rosso antico	92	Spere	109
Rostrum	ib.	Sphæristarium	44
Rotunda	ib.	Spheric spandrel	89
Rustics	72, ib.		

	PAGE		PAGE
Sphinx	5	Tambour	49, 97
Spire	66	Tazza	44
Spurs	51	Telamones	36
Stack of chimneys	94	Templa	103
Withs	ib.	Ædes	ib.
Stadium	11	Ædiculæ	ib.
Staircase	94	Delubra	ib.
Balustres	95	Fana	ib.
Curtail step	ib.	Sacella	ib.
Flights	94	Temple of Æsculapius	10
Flyers	95	Antoninus and	
Handrail	ib.	Faustina	21
Landings	94	Apollo	10
Newel	95	Apollo Didymæus	3
Newel bar	ib.	Apollo Epicurius	10
Well hole	ib.	Augustus	13
Winders	ib.	Bacchus	4, 22
Stalls	60	Belus	2
Stancheons	66	at Benares	5
Starlings	95	Carnak	8
Statics	85	of Ceres	13
Statue	95	Ceres and Pro-	
Bust	96	serpine	17
Curule	ib.	at Chillambrum	5
Grecian	95	of Concord	18, 21
Iconica	96	Diana	3
Roman	95	Doric Portico	13
Steening	111	Erectheus	ib.
Steeple	66	Fannus	22
Stereotomy	81	Fortuna Virilis	21
Still-room	96	Hecatompodon	12
Stilts	96	Ilissus	13
Stoa	14	Isis	15
Stoups	61	Janus	22
Strike	66	at Jerusalem	3
Style, or order of ancient		of Juno	4, 21
Temples	18	Juno Lucina	18
Stylobate	42	Jupiter	21
Subterraneous works	51	Jupiter Ammon	7
Mines	ib.	Jupiter Feretrius	21
Surbase	96	Jupiter Olym-	
Cornice	ib.	pius	10, 14
Dado	ib.	Jupiter Panhel-	
Skirting	ib.	lenius	18
		Jupiter Stator	21
Tabernacle work	61	Jupiter Tonans	22
Tablets	66	Mars Ultor	21
Corbel table	ib.	Mercury	15
Cornice	ib.	Minerva 12, 18, 21	
Dripstone	ib.	Minerva Chal-	
Earth table	ib.	cioccus	38
Talus	51	Minerva Medica	23
		Minerva Polias 4, 13	

	PAGE		PAGE
Minerva without wings	13	Throne.....	61
Pandrosus	42	Tomb of Alexander Severus	26
Pantheon.....	22	Augustus.....	ib.
Parthenon	12	Caius Cestius	ib.
Peace	21	Cecilia Metella..	ib.
Pæstum	29	at Gournou	9
Propylæa.....	13	of Hadrian	26
of Rome and Venus	22	Torso	98
at Sais	7	Tower	
Segesta	18	Corbel tower	67
Selinus.....	ib.	Turret	ib.
Seringham	6	Tracery	ib.
of the Sun.....	3	Flowing.....	ib.
at Tentyra.....	7	Perpendicular	ib.
of Terminus	21	Cusps	ib.
Theseus	13	Double feathering	ib.
Tiburtine Sybil	28	Featherings.....	ib.
by Triphonius	17	Quatrefoil, &c.	ib.
of Venus	18	Transept	61
Venus Erycina	22	Transoms.....	67
Vesta	21	Traverse	51, 67
Temples, the four most beautiful	17	Treasury	
Tenailles	51	Grecian	31
Terminator.....	89	Roman.....	102
Termini	36	Trellice	67
Terrace	97	Trenches.....	51
Terreplain	51	Trianon, a pavilion highly decorated, in a park near a mansion, similar to the Casino among the Italians.	
Tesselated pavement	97	Triforium	61
Theatre	ib.	Trigonometry.....	81
Boxes	ib.	Tripod	44
Concert room	ib.	Triumphal arches	25
Gallery	ib.	Constantine.....	ib.
Green Room	ib.	Goldsmiths	ib.
Orchestra	ib.	Nero	ib.
Pit	ib.	Octavia	ib.
Public Room	98	Portico of Septimius Se-	
Stage	97	verus	ib.
Theatre of Bacchus	16	Septimius Severus.....	ib.
Grecian.....	15	Titus	ib.
of Marcellus.....	23	Triumphal columns	ib.
Regilla	16	Antonine.....	ib.
Roman	24	Dullius	ib.
Thermæ or baths		Trajan.....	ib.
Agrippa	25	Trophy	98
Caracalla.....	ib.	Trusses	69
Constantine	ib.	Tunnel.....	109
Dioclesian	ib.	Tympanum	41
Nero.....	ib.		
Paulus Æmilius.....	ib.	Umbratile	32
Titus	ib.	Unctuarium	42
Vespasian	ib.		
Tholus	42		

	PAGE		PAGE
Undercroft	61	Walls	
Urn	99	Quarter partitions	100
Attribute of river Deities	100	Weather or close boarded	ib.
Cinerary	ib.	Water table	ib.
Ossuaries	ib.	Stringings	ib.
Vallum, the parapet in Roman fortifications, it consisted of two parts, agger and sudes: the former was the earth thrown up from the vallum, and the latter, wooden stakes to support and strengthen it.		Weepers	61
Vase	98	Well	111
Funereal	ib.	Steening	ib.
Votive	ib.	Wicket	100
Vault	67	Windlass	101
Vaulting	109	Window	ib.
Verandah	99	Bay	62
Verd Antique	ib.	Bow	ib.
Verona, amphitheatre of ..	29	Casement	101
Vestiarium	59	Catharine wheel	63
Vestibule	51, 99	Compass	62
Vise	21, 26	Dioclesian	99
Vice	106	Dormer	78
Villa	99	French casement	101
Villas		Oriel	62
Cicero	28	Rose	66
Hadrian	ib.	Winds, tower of the	14
Horace	ib.	World, wonders of the	19
Mæcenæ	ib.	Wreath	101
Pliny	ib.	Xysti	24
Roman	ib.	Zigzag mouldings	67
Volute	34	Zoccoles	42
Vomitória	23	Zophorus	31
Voussairs	99	Zotheca	101
Voussure	ib.		
Waggon-headed	100	The subdivisions of the Orders are not all inserted in this index: it is presumed they may easily be found by reference to the plates, and general description, as given from page 31, to 36.	

Plate I.



Plan of the Greek Agora or Forum.

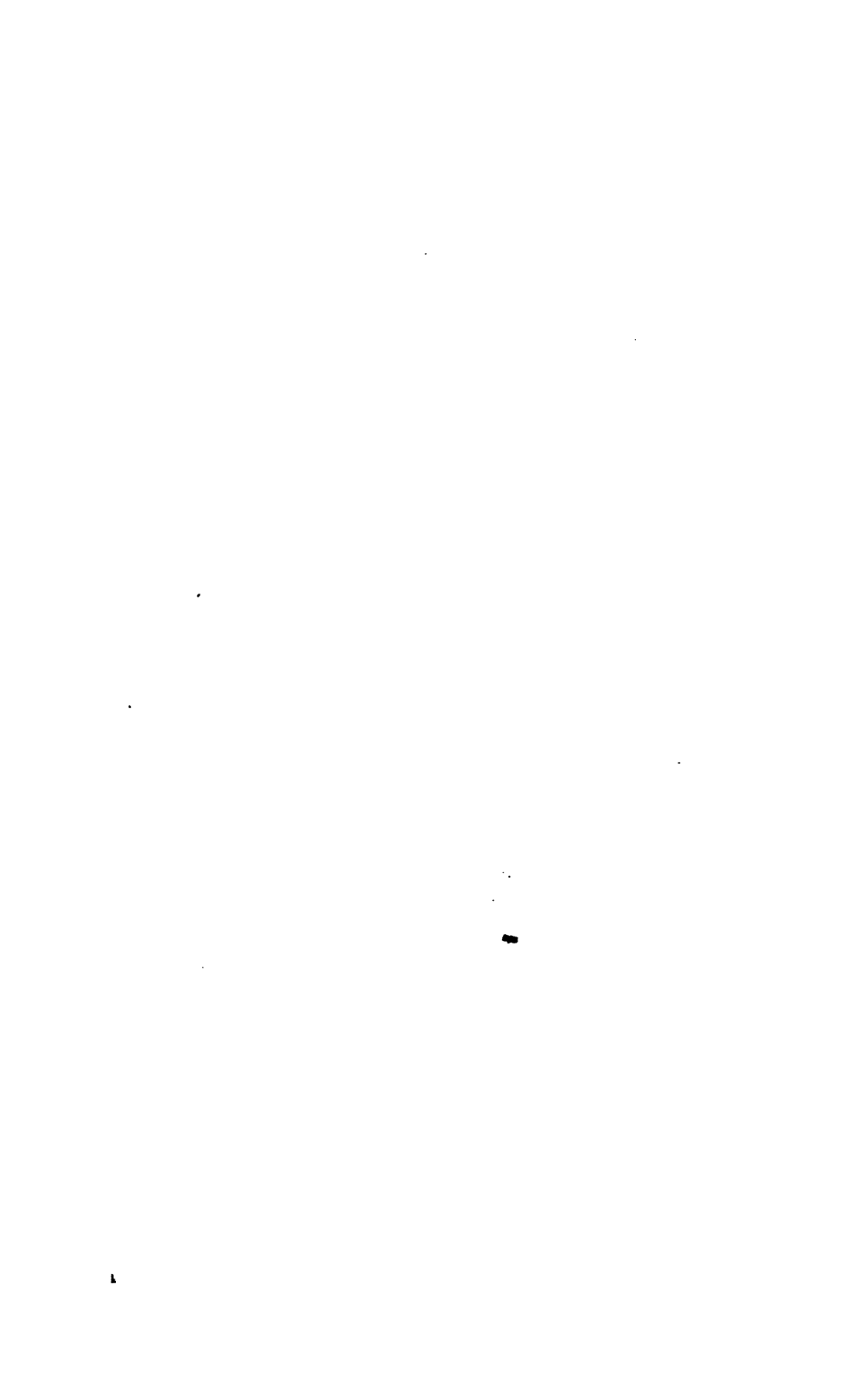
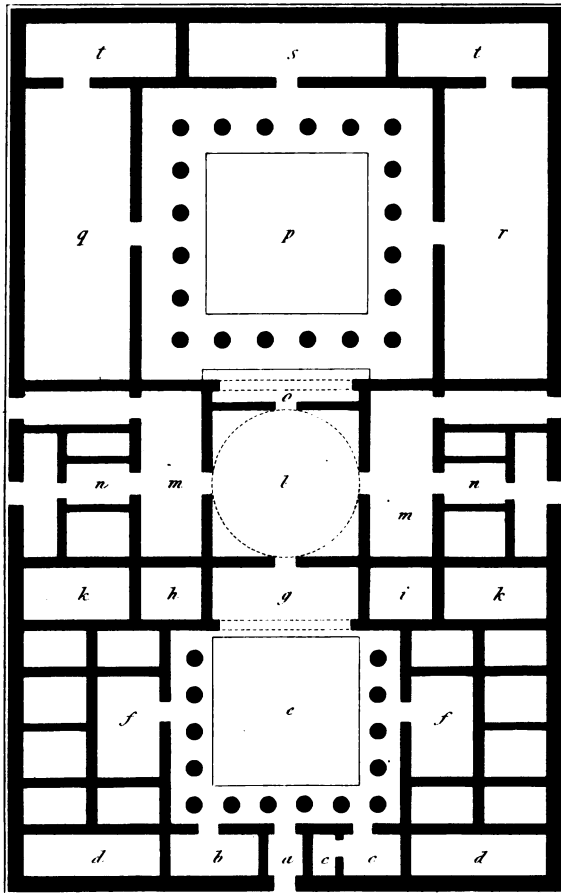
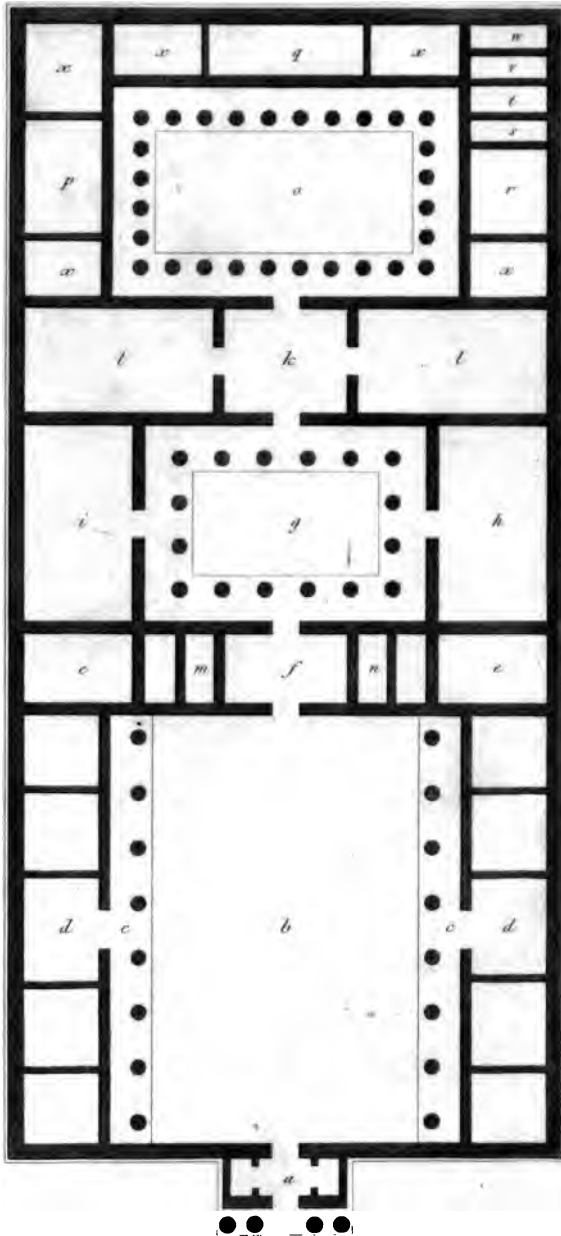


Plate 2.



Plan of a Greek House.
Shewing simply the principal divisions of the several parts.

Plate 3.



*Plan of a Roman House,
showing simply the principal divisions of the several parts.
encl. de in.°*

Plate 9.

Fig 1.

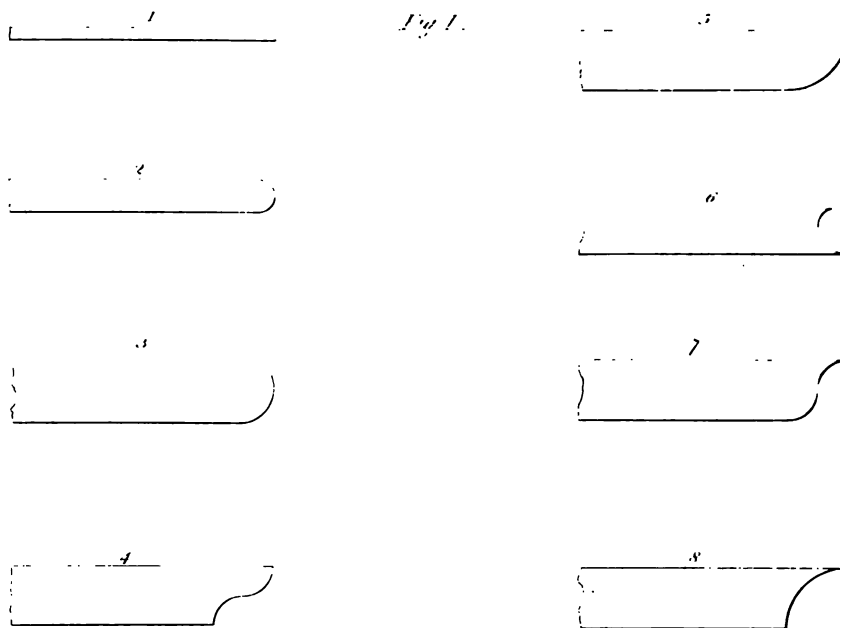
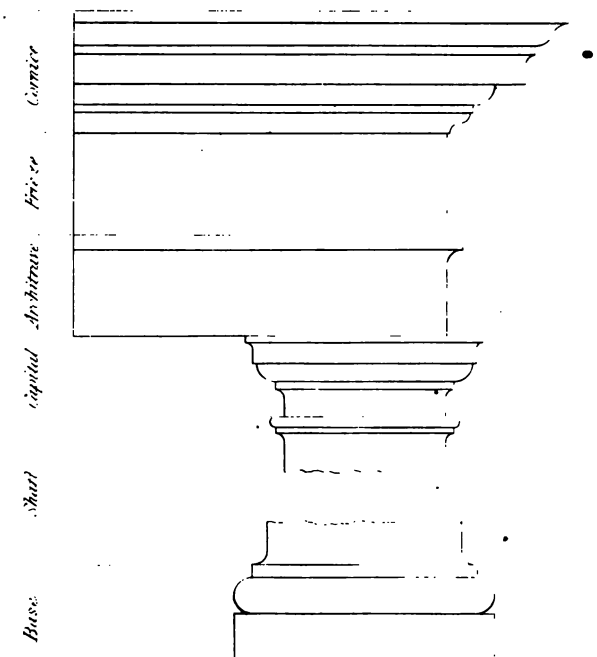


Fig 2.



Tuscan Order.

Plate 5.

Fig. 1.

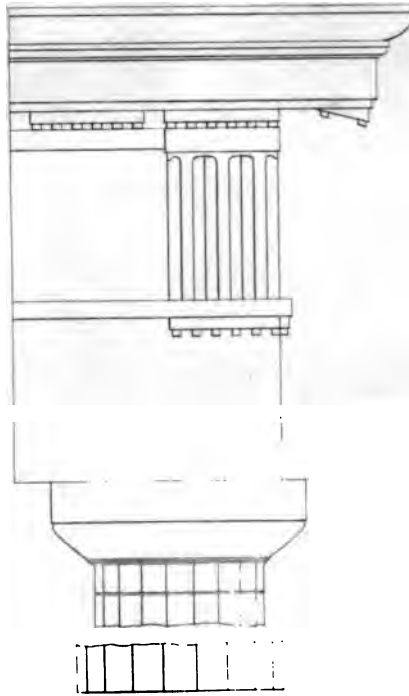
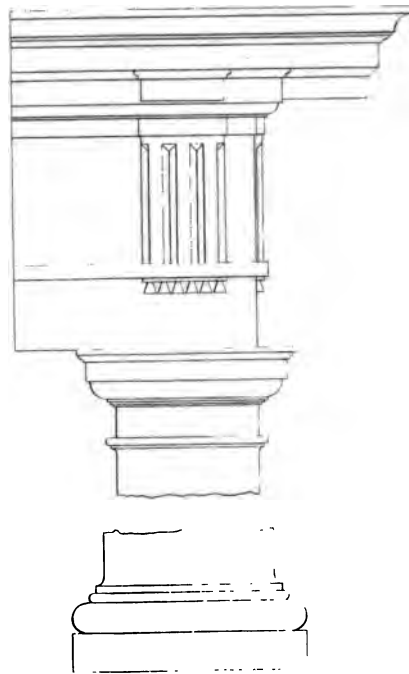


Fig. 2.



Doric Orders.

Plate 6.

Fig. 1.

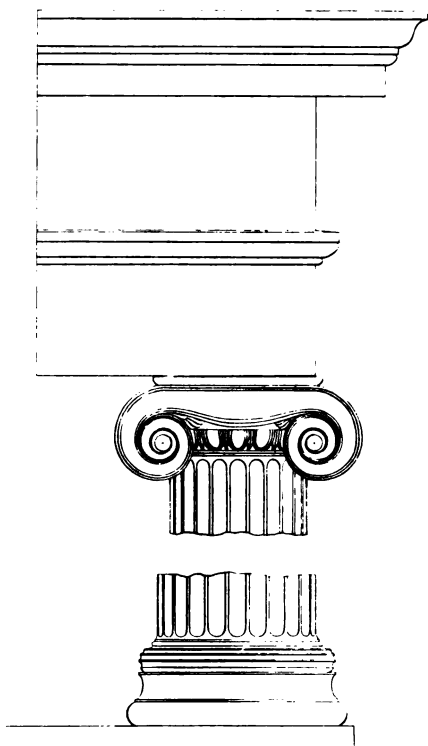
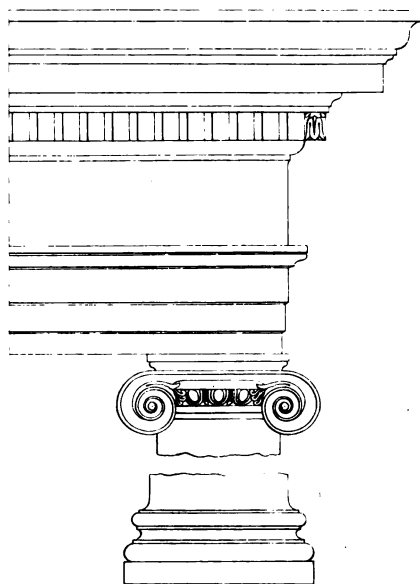


Fig. 2.



Ionic Orders.

Plate 7.

Fig. 1.

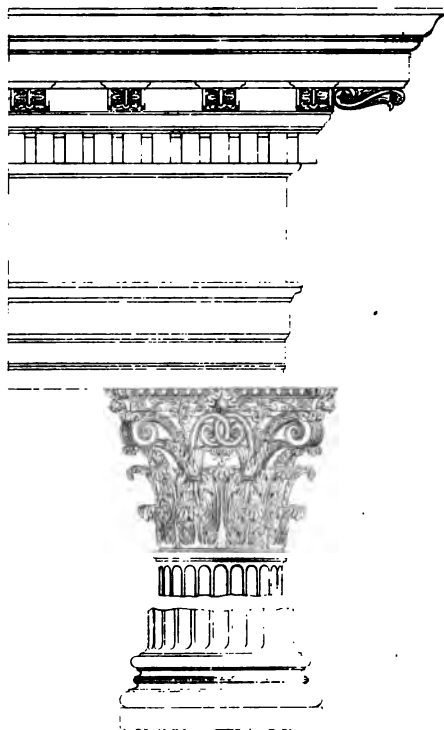
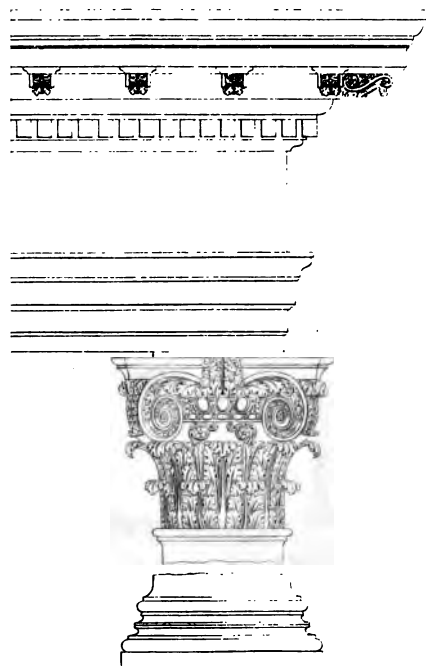


Fig. 2.



Corinthian and Composite Orders.

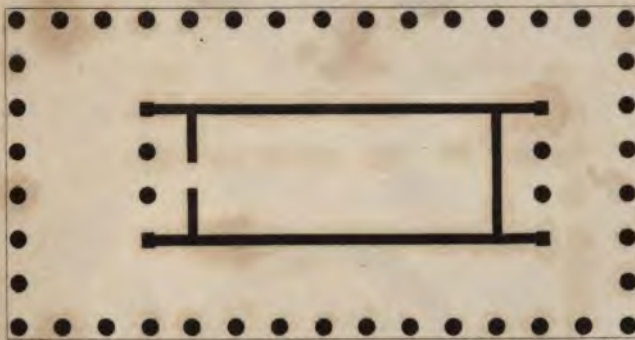


Plans of the different Orders of the Ancient Temples.

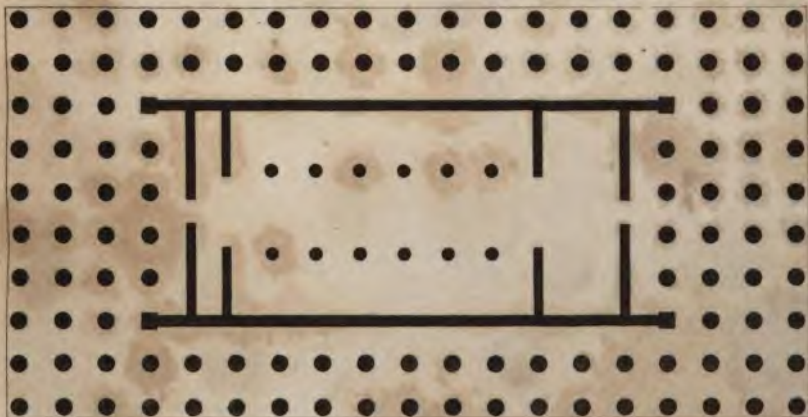
Fig. 5.



Fig. 6.



7.



Plans of the different Orders of the Ancient Temples.

Fig. 1.



Fig. 2.



Plans of the Orders of Temples and Intercolumnations.

Fig. 1.

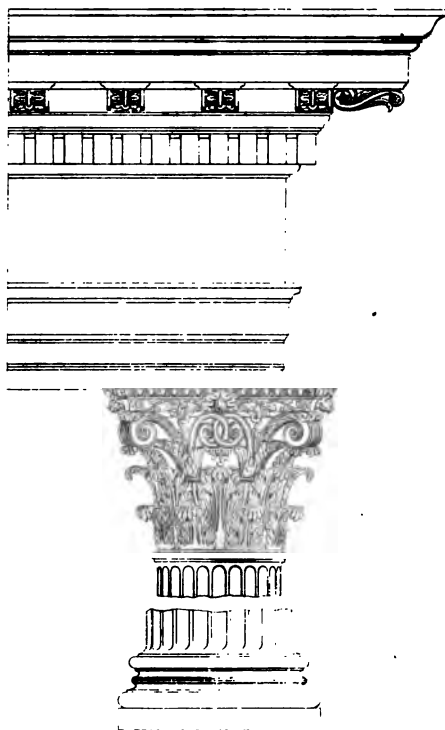
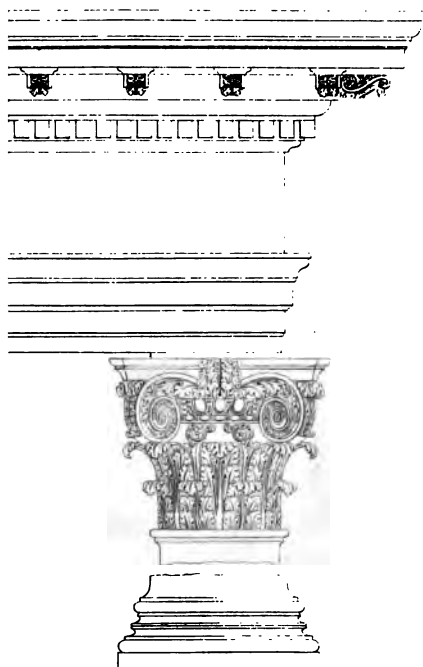


Fig. 2.



Corinthian and Composite Orders.

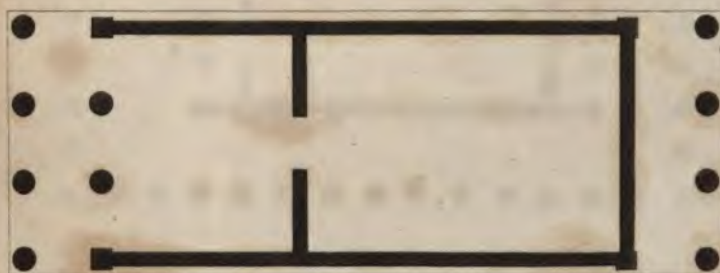
1



2



3



4



Plans of the different Orders of the Ancient Temples

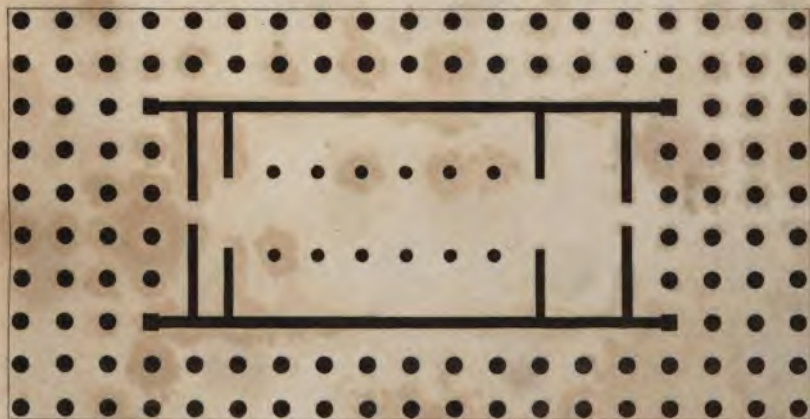
Fig. 5.



Fig. 6.



7.



Plans of the different Orders of the Ancient Temples.

Fig. 1.



Fig. 2.



Plans of the Orders of Temples and Intercolumniations.

Plate II.

Fig 1.

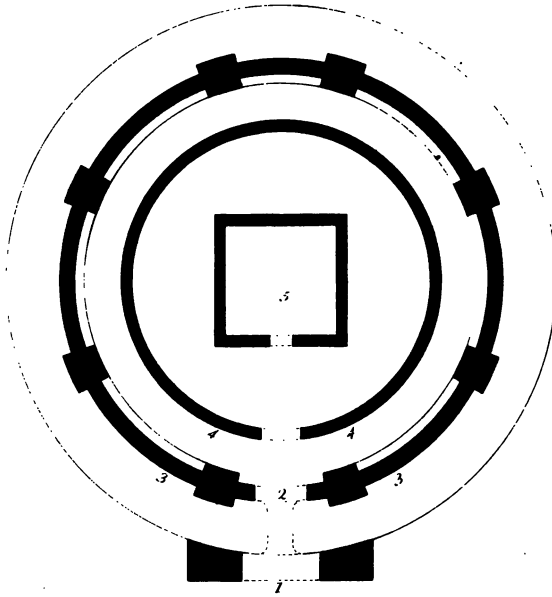


Fig 2.

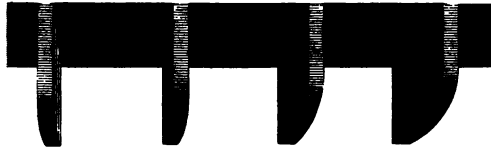
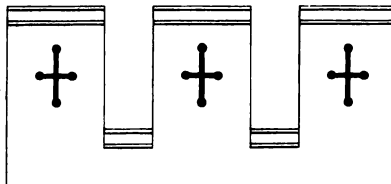
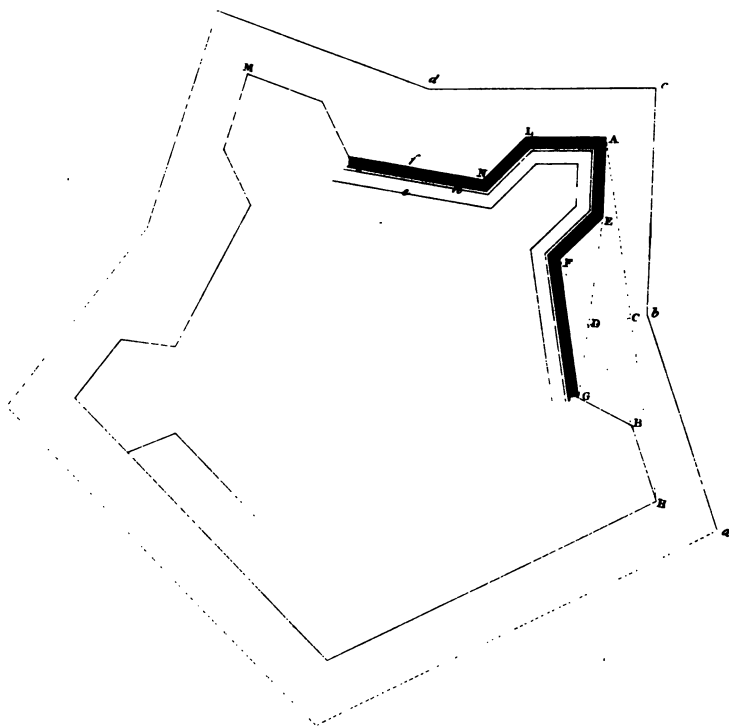


Fig 3.



Plan of a fortified Castle.

Plate 12.



Plan of a Fortification.

win?

A. Dick sculp.

Fig. 1.

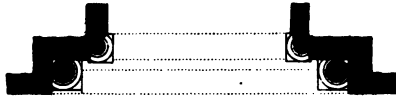
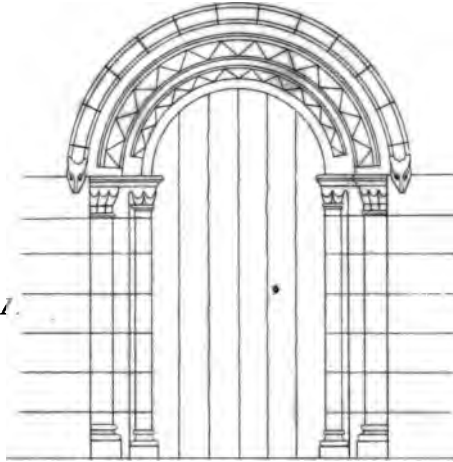


Fig. 2.

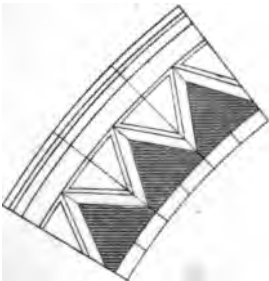


Fig. 3.

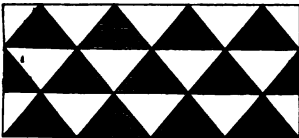
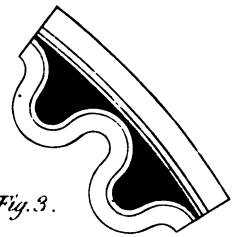


Fig. 4.

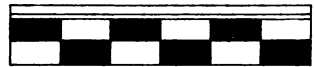


Fig. 5.

Fig. 1. Door, Norman.
 Fig. 2. Chevron or zigzag moulding. Fig. 3. Nebule. Fig. 4. Hatched moulding.
 Fig. 5. Billet.

Fig. 1.

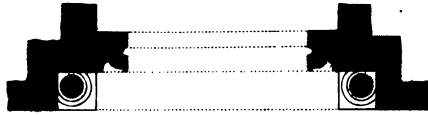
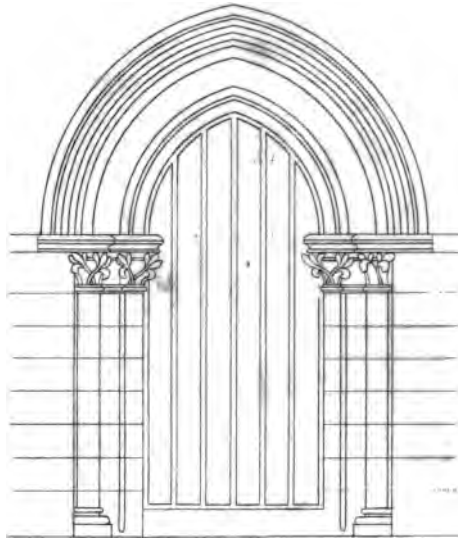
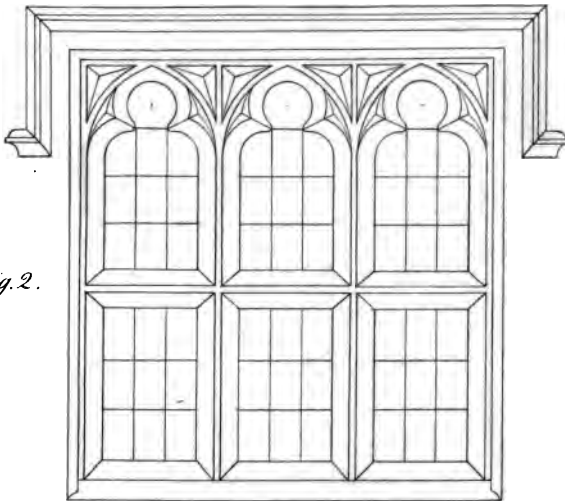


Fig. 2.



Gothic Styles.

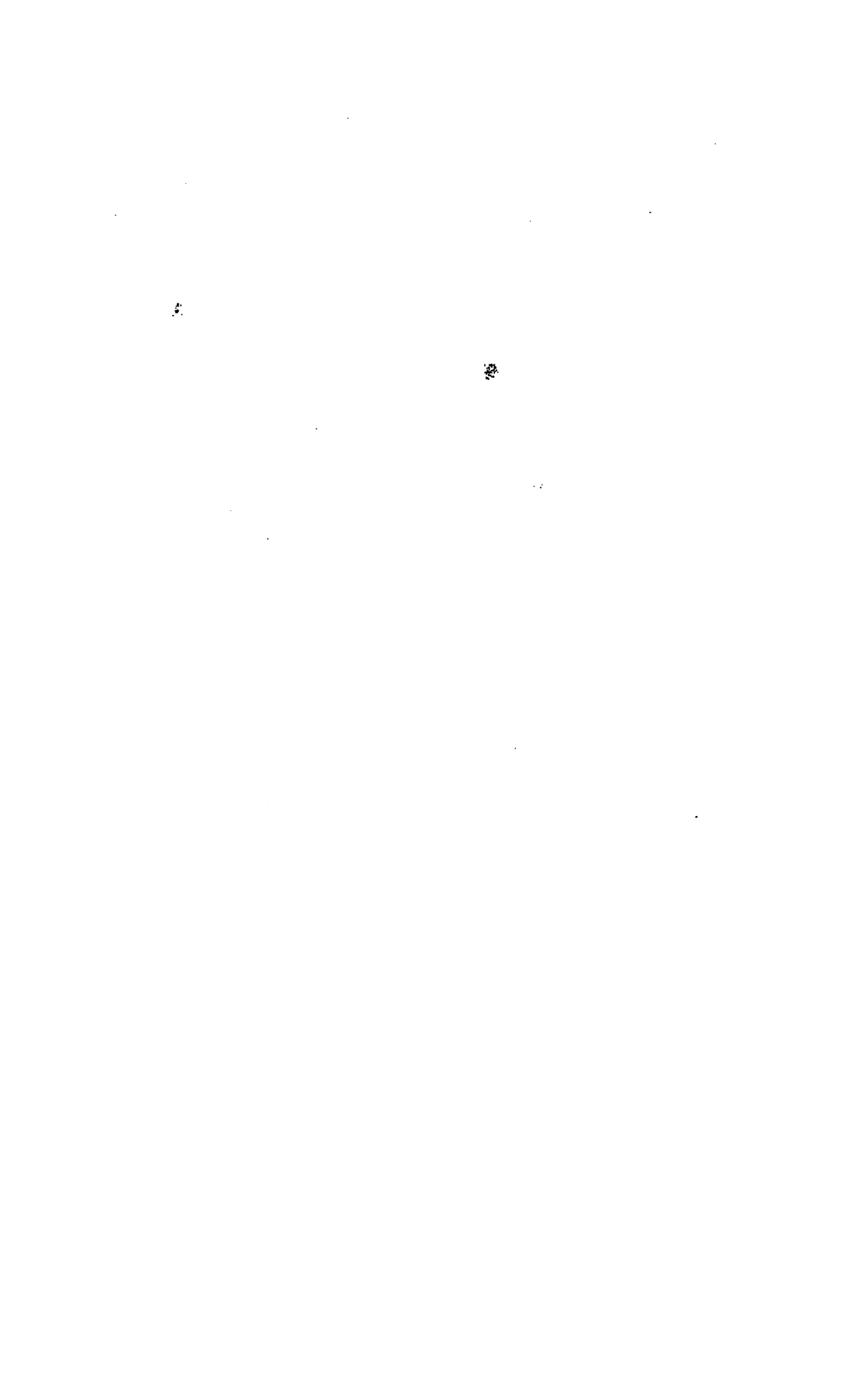


Fig. 1

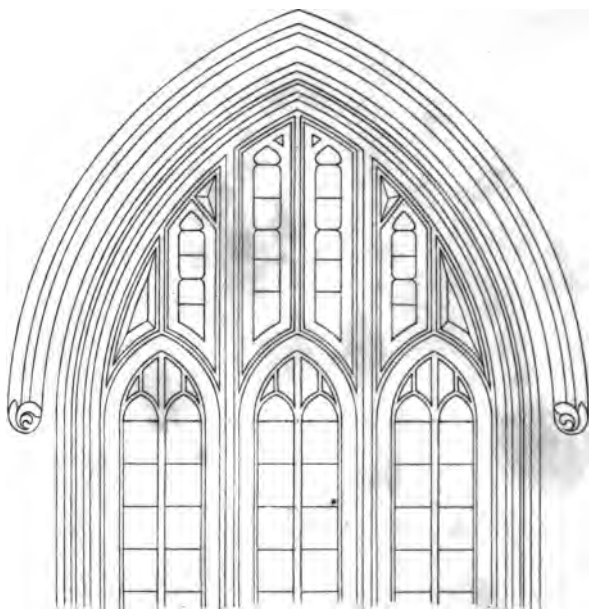
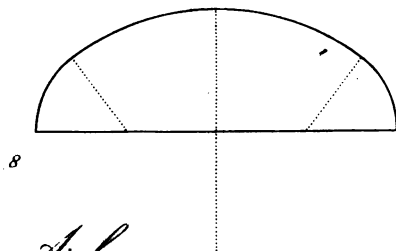
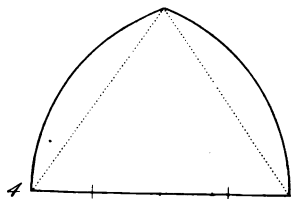
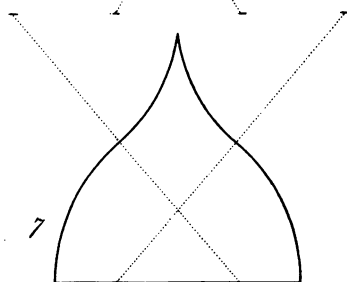
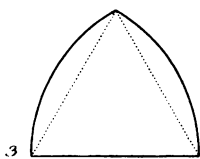
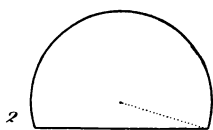
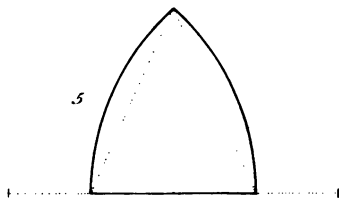


Fig. 2



Gothic Styles.

Plate 16.



Gothic Arches.



